AXA Health

Digital health: the changing landscape of how we access GP services

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Contents

Foreword

While the COVID-19 pandemic has shone a light on the dedication of our healthcare heroes, it has also highlighted the need to ease the load for frontline workers. While this is, no doubt, a complex issue with many layers, digital technologies could play a significant role in helping to ease this pressure, particularly in the world of general practice.

This report, combining research from our team at AXA Health along with findings from the Centre for Economics and Business Research (CEBR), explores the scope for general practice services to further embrace digitally delivered care and support to patients. It looks at how offering online consultations as a first point of contact could increase efficiencies by reserving face-to-face consultations for those identified as needing them – a message that has only been reinforced even more since the COVID-19 pandemic.

Unquestionably, there's a positive knock-on effect for businesses too. When staff are unwell, businesses become less productive. Online GP appointments can not only be a convenient way to access support that helps you get better, but there's also no time-consuming journeys involved.

The findings show that UK businesses could avoid losing up to £1.5 billion in economic output, simply by eliminating the travel time required to attend GP consultations.

Furthermore, alongside the anticipated convenience of accessing a GP online, the benefits to patients could include the support of their overall wellbeing, as well as a saving in travel costs, loss of earnings and travel time.

The report also explores some practical examples of where such services are thriving, both from a workplace perspective and from a GP perspective. Interestingly, many GPs that are employed with Doctor Care Anywhere, who deliver our online GP service AXA Doctor at Hand, note that they feel they can provide their highest quality care possible as a result of a more flexible way of working, while large companies such as Microsoft UK have seen a huge take-up in online GP services and report high levels of employee satisfaction.

Digital technology already plays a huge role in our lives and industries, such as banking, where the industry has embraced the shift to online with open arms. However, in healthcare, it seems that the potential for such services is still vastly unrealised. Here at AXA Health, we are championing the inevitable shift, which will no doubt transform healthcare completely.

Tracy Garrad
CEO, AXA Health

Technology in health – why now?

The COVID-19 pandemic has undoubtedly highlighted the commitment and professionalism of those who work in our health and care services here in the UK. It has also highlighted the role that technology can play to help make the healthcare system more efficient and to help ease the load for those who are working tirelessly on the frontline.

While the system is complex, there are several factors that have led to the NHS being pushed to its limit in recent years, with changing societal needs being a significant contributor to the pressure being put on general practices.

Not only have our lifestyles shifted, but we're also much more aware of our health. Thanks to greater awareness, education and understanding, more people are seeking help and treatment for mental health, for example.

Furthermore, with over 300,000 health apps currently in the market, more people are taking ownership of, and sharing, their healthcare data than ever before.[1]

We're also living longer, which is significantly changing our healthcare needs.[2] As our population ages, many of us will be living with more than one chronic illness, meaning we will need access to more complex healthcare services. In fact, a study by The Royal College of General Practitioners (RCGP) estimates that by 2025, 9.1 million people in the UK will be living with multiple, serious long-term conditions.[3]

These challenges lend themselves to another issue: fulfilling demand.

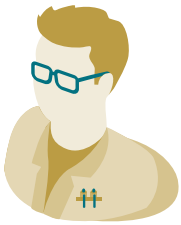
As we know, primary care services are going flat-out in enormously difficult circumstances. According to the same RCGP study, general practices are now caring for more patients with fewer GPs, as they struggle to recruit and retain staff. The staff shortage situation has been further strained by an ageing workforce within general practice, with one in five GPs approaching retirement.

An investigation by The Times newspaper in December 2019 found that in some general practices, there may just be one doctor on a permanent contract of employment, as well as practices that have no permanent doctor and are being serviced by locum GPs.[4]

The staff shortage situation has been further strained by an ageing workforce within general practice, with

1 in 5

GPs approaching retirement



Nearly

81%

of appointments took place face to face in 2019

Naturally, this has led to longer waiting times for appointments – in fact, nearly 54 million patients waited over two weeks for a GP appointment in 2019, according to the investigation.

In extreme cases, some practices had even been forced to close due to recruitment issues and patients in the worst-affected areas of the UK could see waits of up to nine weeks for an appointment with a GP, for example.

Furthermore, separate polling by GP newspaper Pulse found that pre-pandemic, GPs in the UK had an average of 41.5 patient contacts every day – 60% more than the number that's considered safe by European GPs.[5] Of the 900 GPs that were surveyed, the study found that one in five had more than 50 daily patient contacts, some even up to 70. With so many increased work pressures, it's easy to see why many GPs often retire early or give up partnerships.

To try to address the issue, NHS England set a target to recruit 2,000 overseas doctors into general practice by 2020. According to a report by the British Medical Association, as of September 2019, only 140 GPs had been recruited via the programme.[6] In February 2020, the Royal College of GPs raised their concerns that GP numbers were continuing to move in the wrong direction, with the number of fully-qualified, full-time equivalent GPs falling by 277 in a year.[7] The government has more recently pledged to make an additional 50 million general practice appointments available each year and has also pledged to increase the number of GPs by 6,000 by 2024-25. While this doesn't change the pressures currently facing the system, greater utilisation of digital healthcare services could help to reduce them.

Indeed, digital GP services have expanded mightily in response to the COVID-19 pandemic. The RCGP for example reported that, in the four weeks leading up to 12 April 2020, 71% of routine consultations in general practice were delivered remotely, with about 26% being face to face. These figures, it noted, saw a reversal on the same period in 2019, when 71% of consultations occurred face to face and 25% over the phone.[8]

Within general practice, treatment of patients is increasingly being provided by other members of the team including practice nurses, nurse practitioners (who can prescribe and review medication), healthcare assistants and practice pharmacists. In fact, in December 2019, 10.5 million appointments were carried out by a non-GP healthcare professional in England.[9] Despite all of these variables, the potential for online GP services is still vastly unrealised. Most GP appointments still take place in the practice surgery.

According to NHS Digital, NHS GPs carried out 312 million patient appointments outside of the spike seen during the COVID-19 crisis, with 81% taking place face to face in 2019.[10]

Unquestionably, the COVID-19 pandemic highlights the potential for such services even more.

The role of technology in healthcare

Digital technology plays a substantial role in our day-to-day lives. It's how we connect with family and friends; keep up to date with what's happening; learn more about things that matter to us; make purchases; pay bills; monitor our fitness; listen to music; catch up with TV shows, take in live sport or watch a movie – the list goes on.

In fact, the Office for National Statistics (ONS) estimates that 93% of households in Great Britain had access to the internet in 2019[11] and in the same year, Ofcom found 79% of UK adults used a smartphone, making it the most popular form of internet connected device.[12] With so many of us using internet connected devices now, almost everything we need is available online or via an app that can be downloaded to our phones.

However, as a sector, healthcare has been slower to adopt some of these technologies. In 2019, just 13% of NHS GP consultations were held over the phone and less than 1% of appointments took place via video/online, according to NHS Digital data.[10]

As primary care continues to feel the strain of the national GP shortage, particularly in light of the COVID-19 pandemic, introducing digital initiatives could help to ease some of this pressure.

New analysis by the Centre for Economics and Business Research (CEBR), on behalf of AXA Health, quantifies the value that online GP services could bring to the healthcare industry.

The findings reveal that if video/online appointments with GPs had been offered as the first point of contact across all practices in 2019, then face-to-face consultations could've been reduced by more than 50 million.[13]

Patients who might simply require reassurance, or straightforward advice could benefit from video/online services, which could be offered conveniently via secure online appointments. This would in turn make face-to-face appointments more accessible where needed due to the associated efficiencies of remote appointments, which we'll come onto.

General practices have already started to alter their approach to embrace technology that enables GPs to work remotely. Telephone consultations for example initially made up 3% of NHS consultations in 1995[14], whereas that number increased to 13% in 2019.[10]

The COVID-19 pandemic has highlighted the true potential of such services and the ease with which online GP services can become an integral part of the offering. This will no doubt contribute to greater uptake moving forward, where online GP consultations will become as commonplace as online banking or shopping and help to increase efficiencies within healthcare.

Key benefits to healthcare providers

The analysis by CEBR for AXA Health shows that online GP consultations could benefit primary healthcare providers by increasing efficiencies, reducing the number of necessary face-to-face appointments, and curbing the number and impact of no shows.

Online GPs offer the chance to increase the efficiency of GP surgeries. As we've already touched on, if video/online appointments had been used as a first option of contact for all GP practices in 2019, this could have reduced face-to-face consultations by more than 50 million.

Numerous trials have shown that using technology can increase efficiencies in consultations. When telephone consultations were trialled in a clinical study as a first point of contact for patients seeking GP appointments in England for example, the results showed a significant reduction in the number of face-to-face consultations as most patients were able to receive the advice and treatment they needed over the phone.[15] In fact, the evidence from this telephone trial showed that, as more patients were able to resolve their issues by talking on the phone with a GP, the balance between telephone and in-person consultations shifted (towards the former) dramatically. It follows that a move towards virtual consultations from an internet connected device would afford GPs more information than over the phone (for example remote visual examinations), offering further potential to reduce face-to-face consultations in their surgeries.

As well as this, for patients, seeing their GP on screen can mean that the quality of the consultation is higher than if they were to speak to their GP over the phone, which can also help to increase trust and satisfaction. And, with confidence in such consultations conducted online, there's the potential that patients will return to them as their preferred method when it comes to seeing their GP.

Online consultations can also help to reduce the number of did not attend (DNA) appointments. In 2019, one in 20 general practice appointments were recorded as DNA, according to NHS Digital Data.[16]

There can be many reasons for patients not attending appointments, but for most people, it is usually a case of the appointment not being at a convenient enough time for them, or not needing one anymore. In fact, AXA Health research reveals that of those who have skipped or cancelled GP appointments, the most common reasons were that work commitments took over (28%), family commitments took over (26%), or symptoms had eased by the time the appointment came around (26%).

In 2019

1 in 20

general practice appointments were recorded as DNA (did not attend), according to NHS Digital Data

Cancellations and no shows waste valuable capacity in general practice and can prevent other patients from using the time allocated for missed appointments.

CEBR's analysis estimates that if missed appointments were reduced by 20%, 60 years of GP consulting time could be freed per year.[17]

Online appointments with private GP services are typically available at convenient times for patients and there are usually timely appointment reminders and an easy way for patients to amend or cancel their bookings during the booking process. In addition, the reduced travel costs and flexibility regarding the location from which patients can 'attend' online appointments arguably makes it easier for patients to follow through with appointments. These factors might seem marginal, but ultimately, they make the appointment more convenient for the patient, which could have a knock on effect in helping to reduce no shows.

It appears that Brits also believe that online GP services could positively impact our healthcare system, with AXA Health's polling revealing that three in five (60%) UK adults believe that online GP services could help to reduce the overall number of face-to-face consultations.

Furthermore, over half of UK adults (55%) believe that generally, online GP services could help to reduce the national healthcare burden, easing the pressures experienced in general practice.

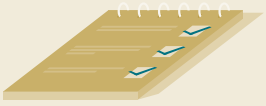
Additionally, with online appointments offering more flexibility not just for patients, but also for GPs in terms of working structure, the potential is there for this way of working to support with GP recruitment and retention.

The need for the NHS' stretched resources to be used effectively has been further heightened by the COVID-19 pandemic, with the emphasis on prioritising services for those in greatest need. For their part, primary care services have adapted by increasing their use of telephone triage and remote consultations to reduce the need for face-to-face appointments. But will this new way of working continue after the pandemic has passed? Let's hope so, as making it easier for patients to make and attend appointments virtually should help to decrease the number of missed or cancelled appointments, further increasing efficiencies in their local surgery. Efficiencies that, for example, will be greatly welcomed in order to meet the complex healthcare needs of the UK's ageing population.

The three most common reasons for skipped or cancelled appointments were:

28%

work commitments took over



26%

family commitments took over

26%

symptoms had eased by the time the appointment came around

Benefits to businesses

It goes without saying that when your employees are unwell and unable to work, your business suffers financially. To help keep your workforce healthy and productive, enabling employees to access timely medical care and advice has an important role to play. Of course, staff should be allowed time off work to see their GP when they need to, but this can be disruptive and not without cost.

AXA Health's polling demonstrates how significant this is: 41% of adults surveyed have needed to take half a day or more off work to attend a GP appointment over the last 12 months.

Alarmingly, 30% of those surveyed also admitted that they never go to see their GP when they feel unwell because it's too difficult to take time off work, and a further 37% said they often don't. Part of this is due to waiting times for appointments; a third (33%) of respondents think they would've taken fewer sick days if they could have seen a GP sooner.

Remote GP services can help to address this issue by enabling employees to take less time away from work when they need to consult a GP. And let's not forget the implications on mental health as well, which was also an important point for those surveyed – with 38% saying they'd feel much better mentally as a result of the speed and ease of access of speaking to an online GP.

CEBR's analysis demonstrates the value that online GPs can have to businesses in terms of time saved. Their calculations show that when factoring in travel time, waiting time and the consultation itself, the average time cost of an employee's GP appointment is just shy of one hour (57 minutes).[18]

38%

said they'd feel much better mentally as a result of the speed and ease of access of speaking to an online GP

Alongside no travel time for online appointments, we can also assume a shorter waiting period, given that GPs should be able to manage the flow of appointments more efficiently via an online booking system.

Based on these factors, the CEBR calculates that employers could save around 44 minutes of lost working time for every online GP consultation their staff choose to have online.[19]

On top of the time saved, let's not forget the economic value that online GP services could add to businesses, namely in terms of productivity. CEBR's findings show that businesses across the country could avoid the loss of up to £1.5 billion in economic output by eliminating the travel time required to attend initial GP appointments in person.[20]

44mins

The lost time saved for every online GP consultation if it had been done online.

41%

of adults needed to take half a day off to attend appointments

Online GPs could save UK business £1.5bn in lost working time.

Benefits to patients

In addition to the value that online GP services can have to the healthcare system and businesses, there are undoubtedly a number of benefits to patients, some of which we've already touched upon.

As we've seen, 30% of UK adults surveyed in our research admitted that they never see a GP when they are sick because it's too difficult to take time off work, and a further 37% said they often don't.

Our polling also suggests that Brits would be more comfortable speaking to an online GP about their health concerns, particularly when it comes to difficult topics like mental or sexual health.

In fact, half (50%) of UK adults who admitted they had lied to their GP in the past say they would be more open, honest and comfortable discussing their health concerns via an online appointment.

CEBR's research also highlighted two other benefits to patients that result from using online GP services – a reduction in personal travel costs and a reduction in potential lost earnings, particularly for those who are self-employed.

Making time for face-to-face appointments can be challenging where work is concerned. Whether you work for an employer or are self-employed, a trip to see your GP is usually disruptive to your working day.

And trips to the GP usually come at some sort of financial cost, be it fuel or public transport. In fact, CEBR calculates that the average travel cost for each GP appointment is £1.42.[21] This may seem trivial, but when applied to the potential reduction of 52.7 million face-to-face appointments outlined earlier in this report, the total travel cost saving to patients could have reached a staggering £74.8 million in 2019.[22]

30%

of those surveyed said they never see a GP when sick because it's too difficult to get time off work

Added to the cost (and, let's face it, hassle) of travel, for some, visiting the doctor can mean missing out on paid work. Indeed, with the proportion of self-employed workers in the UK standing at approximately 15% (according to the ONS) the majority of this group face financial losses when they spend time away from their work to attend appointments.

Based on the above and factoring in the UK's average hourly wage to be £13.27 (in 2019)[23], a travel time saving of 43.6 minutes (calculated by CEBR, above) would therefore be an equivalent to an average of £9.63 cost per appointment for that worker.

In fact, CEBR's calculations find that if a proportion of the UK's self-employed workforce and just 10% of other workers lost earnings due to travel time for GP appointments in 2019, then online GP appointments could have saved £144 million in lost earnings.[24]

£74.8m

potential travel cost savings to patients in 2019

50%

admitted they would be more open and honest if they were discussing health concerns online

Business case study: Microsoft UK

As a leading global technology company, Microsoft has benefitted people's working and personal lives in myriad ways over the years. At Microsoft UK, looking after the mental, physical and social health of their workforce is a top priority. To help everyone take good care of all aspects of their health, the company has offered AXA Health's private online GP service, AXA Doctor at Hand, to its workforce since 2016. Doctor at Hand is offered as part of the corporate Advance healthcare plan, which is open to both employees and their families.

AXA Doctor at Hand is delivered by Doctor Care Anywhere and is a key component of Microsoft UK's wider health and wellbeing initiatives. Not only are these initiatives designed to benefit Microsoft's workforce, but they are also designed to bring the company's belief of championing technology and innovation to life.

"AXA Doctor at Hand fitted 100% with our desire to provide employees with a more rounded work-life balance and also enhanced our company ethos of driving innovation," explains Andrea Winfield, HR Director at Microsoft UK.

The benefits of AXA Doctor at Hand for employees are wide-ranging. It offers on-demand, personalised care and this all starts with fast, easy online GP access. Appointments can be made anytime and typically take place within a few hours of booking, subject to appointment availability. Doctor at Hand offers convenience and flexibility too – for example, employees can speak to a qualified GP by video or phone from anywhere in the world.

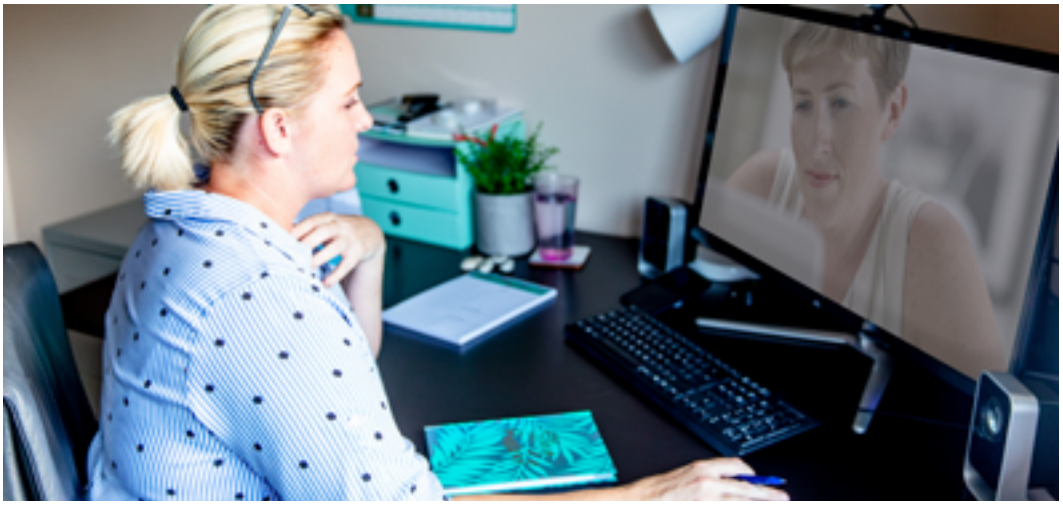
The service also gives employees extra time to talk through their health concerns, should they feel the need to. Employees are able to make use of Doctor at Hand's 20-minute appointment slots, which can provide a more thorough consultation when necessary.

As well as this, AXA Doctor at Hand offers secure access to medical records and consultation notes.

"Our employees aren't based in the office 9 to 5, and neither are their families," Andrea says.

When asked why they opted to offer Doctor at Hand to employees, Andrea says it was a natural choice for the company.

"For them, waiting to see a GP often isn't feasible, so the option of a 20-minute video call that keeps the human in the interaction is something that's particularly welcomed."



"We live in a world where we can and should be using technology as a facilitator. As one of the biggest tech companies in the world, this belief is fundamental to our DNA. AXA Doctor at Hand is a prime example of this – where technology is being used to give the modern workforce control over their healthcare and reassurance over their health concerns," Andrea adds.

"Colleagues have been delighted with the service, particularly the amount of time it saves and the alleviation of stress that can go with that," confirms Andrea.

Feedback from Microsoft UK employees has been positive. The service has been praised for its simplicity, efficiency and ease of use: within the company the service has an average score of 9.6/10.

Figures up to May 2020 demonstrate that almost 70% of Microsoft UK employees who have access to AXA Doctor at Hand are now using it, and over 40% of eligible dependants are also registered. On average, 215 appointments were carried out each month betweenJanuary-May 2020.

Andrea believes the take-up is part of a fundamental shift both in how employees are managing their own health but also in terms of the role they expect Microsoft UK to play.

"I was thrilled to see the increased usage of AXA Doctor at Hand and our other AXA Health benefits, directly linked to the work we've done in the past few months to better highlight services that are quick and easy for employees to access," explains Andrea.

"It's a measure of the work we're doing to encourage people to be more proactive in ensuring they stay well, and a tangible demonstration of how we are able to make a difference," she adds.

9.6/10

average service score

70%

of Microsoft UK employees who have access to AXA Doctor at Hand are now using it

GP Case Study: Dr Catherine Glass

Dr Catherine Glass, AXA Doctor at Hand

I decided that I wanted to study medicine when I was 15 years old. My mum was a nurse and after I attended a 'bring your child to work' day, my mind was made up.

I attended medical school in Liverpool and then stayed there for ten years to work and train before eventually moving to London to work as a GP in Hackney, and later being offered partnership at a practice in Islington.

Working as a partner involved 14-hour days, plus a three-hour round trip commute. Although I loved my job, I felt that I wasn't giving patients the level of care that I wanted to, and I began to worry that I was falling short as a doctor – obviously this wasn't the case, but it started to affect my wellbeing.

A few peers had suggested I consider practising remotely and after seeing an ad for Doctor Care Anywhere, I decided to check it out. I knew pretty quickly that the set-up was just right for me. I've not looked back since.

I've always been interested in the latest new idea and I loved that this was a new, modern way of practising medicine. Doctor Care Anywhere provided training in carrying out online consultations which has allowed me to think about how I build rapport with my patients in a remote setting. I often run patient consultations from my living room, which overlooks my garden. I find that this helps patients relax quite quickly, especially if they see that I am already relaxed. I also feel that working remotely gives me more control of my workload which in turn gives me more time to spend with patients, so I'm able to provide the highest quality of care that I can.

My ultimate dream is to follow my patients throughout their lives, looking after them at different stages and always being there for them.

Working as an online GP has been a game-changer for me as it's allowed me to be the doctor I've always wanted to be. I believe it's the future of medicine.

My ultimate dream is to follow my patients throughout their lives, looking after them at different stages and always being there for them.

Summary and conclusion

With over

300,000

healthcare apps on the market, more people are taking care of their health data than ever before

GPs provide assessment, advice and treatment across a huge variety of issues and health concerns in order to help the full spectrum of patients – from babies to the elderly. While vaccinations and baby weigh-ins are two examples where patients would continue to attend in-person appointments at their local practice, there are numerous examples of consultations that don't require a patient's physical presence in order for it to be effective.

In 2019, half of all adults surveyed said they had made a call over the internet.[11] With the advent of a 5G network and full-fibre broadband, high-quality video calling could soon become more of a possibility for practically everyone.

This could mean online GP appointments via video call have the potential to become more widely used and, in turn, could save businesses and patients time and money. For patients who struggle to see a GP when they have a health concern because they feel unable to take time off work, access to an online GP would be particularly beneficial.

Looking to the future, wider availability and uptake of online GP services could be a significant boost to the health of the nation – and the economy. Not only by making it easier for patients to be seen (and reducing the number of DNA appointments) but also by saving working people and their employers time and money. As we've seen during the current COVID-19 pandemic, there is tremendous potential for such services. And, when the pandemic has passed, let us build on these learnings to transform the way we access primary care – for the better.

References

CEBR analysed the economic impact of virtual GPs in March 2020 and calculated the figures cited in the report, based on a range of ONS and NHS data, as well as evidence from academic studies and clinical trials.

In addition, AXA Health conducted omnibus research through 3Gem research between 13 – 17 February 2020, polling 2,000 UK adults (aged 18+), weighted to be nationally representative.

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[12] Ofcom – communications market review, 2019, **https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/interactive-data**

[13] In 2019, a reduction in face-to-face appointments equivalent to a clinical Newbould telephone triage (Newbould et al, The valuation of telephone first approach to demand management in English general practice: observational study, BMJ 2017;358:j4197) - 38% - would have taken 118.8 million in-person appointments out of GP surgeries. However, although the majority of households had access to internet enabled devices in 2019, the least likely demographic to own or use such devices was also the most likely, per person, to require GP consultations. For instance, in 2013-14 the over 85s required an average of over 13.2 consultations per person per year, compared to 3.26 for 15-24 year olds (Hobbs et al, Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England, 2007–14, Lancet, 2016, **https://dx.doi.org/10.1016/S0140-6736(16)00620-6**). Given the relative sizes of these populations, these groups both account for between 7% and 8% of total consultations, but the younger group is much more likely to have used digital services and would currently be better placed to use virtual GP services.

In order to assess the capability of patients to use the technology, we adjusted the proportion of appointments by age group to account for those households within each age group that have made a call via the internet and might therefore be capable of and interested in attending a virtual GP consultation. This analysis suggests around 44% of consultations would currently be in a position to be done virtually/over the internet. This would limit the reduction in face-to-face consultations from 118.8 million to 52.7 million.

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[16] One-in-twenty appointments (5%) in general practice were recorded as 'Did Not Attend' (DNA) in 2019 according to NHS Digital Data with the spread across clinical commissioning groups typically ranging from 3% to 10%. Source: **https://digital.nhs.uk/data-and-information/publications/statistical/appointments-in-general-practice/december-2019**

[17] One-in-twenty appointments (5%) in general practice were recorded as 'Did Not Attend' (DNA) in 2019 according to NHS Digital Data with the spread across clinical commissioning groups typically ranging from 3% to 10%. Source: **https://digital.nhs.uk/data-and-information/publications/statistical/appointments-in-general-practice/december-2019**

Trials in specialist outpatient units have been successful in reducing the DNA rate through the use of virtual technology. Newham's Diabetes Appointments via Webcam in Newham (DAWN) scheme (Vijayaraghavan et al, DAWN: Diabetes Appointments via Webcam in Newham) switched 62% of those approached onto a virtual appointment model using webcam. The take-up was over 80% among the under-50s but fell to 11% for those over the age of 70. Higher levels of accessibility and flexibility, improved relationships with their clinician and more control over their consultations were also reported by participants.

Within the above scheme, the DNA rate was reduced from 30-50% down to 16%. By increasing the convenience of appointments, it is likely that the DNA rate would reduce for patients in general practice too. Given the lower initial DNA rate in general practice and a wider variety of conditions requiring treatment, these results may not be directly transferable. However, a 20% reduction in the DNA rate (reducing from 5.1% to 4.1%) would seem a conservative estimate given the extent of the gain realised in other trials, such as DAWN.

Applying this reduction to the 312 million face-to-face consultations recorded in 2019, an additional 3.2 million appointments would have been freed up. If these missed appointments reflect an average appointment length of 9.2 minutes (average consultation time recorded by Hobbs et al, Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England, 2007–14, Lancet, 2016, **https://dx.doi.org/10.1016/S0140-6736(16)00620-6** being used inefficiently, then this would have released an extra 29.5 million minutes of GP capacity – almost half a million hours.

However, not all patients may be capable of using the technology. Restricting the analysis to just the 44% of face-to-face appointments we estimate would have been attended by patients with the capability to attend virtually, and keeping the 20% reduction in DNA rates constant, the introduction of a virtual GP would still create the potential for an additional 1.4 million appointments. This is equivalent to over 13 million minutes which, on the basis of a 40-hour week operating 52 weeks a year, means 60 years of GP capacity could be released each year through better use of technology.

[18] Department for Transport's (DfT) National Travel Survey (source: **https://www.gov.uk/government/statistical-data-sets/journey-time-statistics-data-tables-jts**) identifies average journey times and distances for a range of trip purposes, including the average journey time to a GP, by urban / rural, minutes:

Journey time (mins)	Urban	Rural
Walk / public transport	10.8	22.9
Cycle	9.4	18.1
Car	8.1	10.8

The simple average of the categories outlined above indicates a minimum travel time of 13.4 minutes to a GP surgery. Meanwhile, the average trip length recorded by the DfT for all 'personal business', which includes visits to a GP is 19 minutes.

Combining both of these statistics, to account for the uncertainty over the proportion of trips to the GP made by location and mode of transport, the average travel time for a GP appointment including the return journey is estimated to be 32.7 minutes. Adding this to the average consultation time of 9.2 minutes (according to Hobbs et al, Clinical workload in UK primary care: a retrospective analysis of 100 million consultations in England, 2007–14, Lancet, 2016, **https://dx.doi.org/10.1016/S0140-6736(16)00620-6**) and an assumed waiting time of 15 minutes for each face-to-face appointment the total time cost to businesses of an employee's GP appointment is approximately one hour (56.9 minutes).

[19] The total time cost to business for an employee's GP appointment is approximately one hour (56.9 minutes), with the methodology outlined in the above point (18).

By comparison, assuming a suitable place can be found to hold a virtual appointment in the workplace or at home, which doesn't otherwise disturb the working day, a virtual appointment incurs no travel costs. Furthermore, evidence from the Newbould telephone study referenced in footnote 15 indicated that telephone consultations were typically shorter than face-to-face consultations – reducing the average consultation time from 9.9 minutes to 8.3 minutes. Since GPs may be expected to manage the flow of appointments more efficiently via an online system, a shorter waiting period of five minutes is also assumed. This brings the overall time cost to businesses of a GP appointment down to just 13.3 minutes, a time saving of 43.6 minutes (0.73 hours).

[20] On average GVA per hour in the UK was £35 in 2018, although this varied around the regions and nations of the UK, from £46.33 in London to £29.19 in Wales. The growth in hourly pay between 2018 and 2019 (3.9%) (according to the ONS Annual Survey of House and Earnings 2019) is used as a proxy measure to uprate this value to £36.40. This is the estimated GVA per hour, across the UK, in 2019.

At an average GVA per hour of £36.40, a travel time saving of 0.73 hours from each face-to-face appointment (as outlined in reference point 19) avoided would save businesses £26.40 in lost output. Reference point 13 identified up to 118.8 million face-to-face appointments that could be reduced by use of virtual GP services. If 50% of these were avoided by those in employment, during working hours, then the total GVA savings to businesses in 2019 would potentially have been as high as £1.54 billion.

[21] DfT National Travel Survey journey statistics show that the average distance travelled for personal business was around five miles in 2019. Two-thirds of trips (66%) for personal business were made by car, 23% by walking, 7% by public transport, 2% by taxi and 1% by cycling. Assuming an average fuel consumption of 51.5 miles per gallon and £1.24 per litre cost of fuel, a public transport cost of £2.41 per trip and a taxi cost of £5.00 each way, the weighted average cost of travel is £1.42 per appointment (£0.71 each way).

[22] As referenced above in point 21, the weighted average cost of travel has been calculated at £1.42 per appointment (£0.71 each way). Across the 52.7 million reduction in face-to-face appointments that were calculated in reference point 13, the total travel cost saving to patients could have reached £74.8 million in 2019.

[23] ONS, Annual Survey of House and Earnings, 2019.

[24] The proportion of self-employed workers in the UK stands at around 15%, according to ONS.

(**https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/coronavirusandselfemploymentintheuk/2020-04-24**). Furthermore, a conservative assumption is that 10% of employees will have to take unpaid leave in order to attend a GP appointment. Combining this with the self-employed workforce means 25% of those in work could face a loss of earnings every time they attend a GP appointment.

Across the 52.7 million reduction in face-to-face appointments that were calculated in reference point 13, the reduction has been said to benefit those in work mostly. In addition, the average hourly earnings in the UK were £13.27 in 2019, according to ONS' Annual Survey of Hours and Earnings, 2019. For the 25% of the working population that may lose earnings when they attend a GP appointment, a travel time saving of 0.73 hours would therefore be equivalent to an average of £9.63 per appointment. Across all of these appointments in 2019, the total travel cost saving would have reached £144 million.