Public Health England

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A project to explore patterns of use of online services in general practice across Surrey Heath CCG and barriers to their uptake

Project report

July 2017 to May 2018

NHS England | Surrey Heath Community Providers | SURREY COUNTY COUNCIL | NHS Surrey Heath Clinical Commissioning Group

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Executive summary

This project was undertaken as a collaboration between NHS England, Public Health England (PHE), Surrey Heath Clinical Commissioning Group (CCG) and Surrey County Council, and supports the national ambition to support the adoption of a range of technology initiatives in general practice. This is a key focus of the General Practice Forward View and reflects evidence of positive impact on capacity within, access to, and satisfaction with general practice amongst other benefits (1).

Learning from the New Models of Care programme indicates that there is generally poor awareness and uptake of online services nationally. Local surveys have indicated that this is also the case for the Surrey Heath CCG population. The aims of this project have been to achieve a better understanding of the needs of segments of the populations in terms of the use of online services relating to general practice through:

- reviewing the evidence relating to the effectiveness of online services to support general practice
- using the Mosaic Public Sector Tool to segment the Surrey Heath CCG population according to their use of online services, thereby identifying groups which are more and less likely to use these services
- analysing the use of online services by the Surrey Heath CCG population to identify any associations between patterns in usage and demographic factors
- conducting insight gathering work to explore barriers and enablers to the use of GP online services

This project was undertaken in 2 phases, the first to analyse patterns of use of GP online services across the Surrey Heath CCG population, and the second to undertake insight gathering work to explore barriers and potential enablers. A range of methodologies have been used which are:

- literature review – a review of current evidence relating to strategies designed to improve access to general practice, with a specific focus on the use of online services in general practice
- Phase One – quantitative analysis of online transaction data and application of the Mosaic Population Segmentation Tool to segment the Surrey Heath CCG population according to their use of online services
- Phase Two – insight gathering work to explore barriers and enablers to the use of GP online services

Summary of key findings from this project

The evidence relating to the effectiveness of online services to support general practice

There is clear evidence of patient satisfaction with GP online services. Patients find that:

- they are convenient
- they facilitate self-management, prevention opportunities and control over care
- they improve access to GP services, for example through reduced waiting times and availability out of hours

There is evidence that the use of online services enhances access for certain groups, including working individuals who cannot take time off to see a GP. Access to medical records appears to be highly valued by patients and has been shown to improve engagement with patients, which can lead to improved communication, improved adherence to medication, improved adherence to lifestyle advice (with subsequent improvement in some elements of preventive care) and shared decision-making.

The literature indicates that certain groups of patients are known to be less likely to use technology although our study did not always match these findings. Those relevant to Surrey Heath CCG include adults over the age of 65 years who live alone, and people with low computer literacy. Strategies to ensure that these groups do not experience inequalities in access to GP services through poor uptake of the digital offer are important.

Adoption and use of GP online services by patients can be improved through:

- good communication with patients – particularly from healthcare professionals in general practice teams – about availability and safety of these services
- patient involvement in the development of and communications relating to online services
- provision of relevant facilities/technology within practice settings along with availability of trained practice staff to assist patients
- dedicating sufficient time to the piloting and testing of GP online systems to improve accessibility and avoid unintended outcomes

Evidence reviewed for this project relating to the general use of technology, including online services, to improve efficiency and health outcomes in general practice suggests that technology may help with efficiencies in general practice, but that the potential opportunities and benefits have not been fully realised. The relevant evidence base is constantly evolving and growing.

Evidence of a positive impact of online appointment and prescription management on practice administrative efficiencies is limited to date: this is due to the uptake in most areas being too low to demonstrate impact.

Clinician concerns include impact on workload, training needs relating to the use of technology, confidentiality and governance issues. Further insight gathering work amongst GPs and the wider team would be valuable in terms of identifying how these issues might be addressed.

Analysis of the use of online services by the Surrey Heath CCG population to identify any associations between patterns in usage and demographic factors

Approximately one third of the GP-registered population of Surrey Heath CCG were found to be registered to use at least one GP online service. Variation was seen by surgery, with one surgery having more than 50% of patients registered for online service use. The most popular services for which patients have registered are online appointment management and online prescription requests. A greater proportion of women (54.8%, 19,362/35,340) compared with men (45.2%, 15,978/35,340) were found to be registered for online services, and patients aged between 45 and 54 years were most likely to be registered for at least one service. The majority of people registered for appointment management had never, however, actually booked an appointment online.

For appointments booked using the online service, the peak age groups were found to be 65 to 69 years and 70 to 74 years. This contrasts with the findings from a 2017 NHS report (referencing the 2016 Office for National Statistics Internet Access by Household and individuals bulletin) that only 53% of households with one adult aged 65 or over had internet access compared to 87% of households with only one adult aged 16 to 64 years.

The majority (64%, 3,850/6,042) of patients using the online appointment management service made only one to 2 appointments online during the one-year period. Twenty-two percent (1,322/6,042) made 3 to 4 appointments online and 14% (870/6,042) made 5 or more (of whom 2% (117/6,042) made 10 or more appointments online).

Women and older adults were, again, more likely to use online services to manage their prescription requests. Approximately half of patients using the online service to request prescriptions were found to have made between one and 5 requests online, with a quarter of patients making more than 11 requests during the one-year period.

Use of the Mosaic Public Sector Tool to segment the Surrey Heath CCG population according to their use of online services, thereby identifying groups which are more and less likely to use these services

The Mosaic analysis undertaken indicated that there are a number of Mosaic groups and types within the Surrey Heath CCG population. For example, Rental Hubs and Family Basics, which characteristically display early adoption of new technologies and high internet use, but who have not registered for the use of GP online services. Further exploration of potential barriers for these groups in registering to use online services is recommended.

Insight gathering work to explore barriers and enablers to the use of GP online services

For some patients and staff in general practice, implementation of online services is recognised as being helpful and is accepted to be the future direction of travel within general practice. Numerous barriers to optimal implementation and use have, however, been identified during this work. There are also concerns that online services will not be accessible to, or appropriate for, certain population groups who may be left vulnerable to health inequalities if alternative routes of access do not remain open for them.

Positive feedback was given by all groups around the use of online prescription and appointment management, but the overall scope of services which are offered by practices tends to be limited to only these services. This, therefore, limits the attractiveness and usefulness of online services for patients. Furthermore, technological issues, such as the complexities of resetting forgotten passwords, are a significant barrier to the uptake of online services by patients.

For the workforce, the perceived risks, competing policies and current workload all appear to be paralysing moves towards system change and are preventing online services from being implemented to their full potential. Clinicians in particular seem wary about new policies relating to healthcare delivery, as previous changes have led increasing demand. There are mixed views amongst the workforce regarding whether or not online services have helped overall to reduce the burden of work, or whether certain services have made things worse.

Access to general practice overall remains a significant issue, with conflicts between what general practice staff believe should be offered to patients, and what is feasible given capacity constraints. The loss of continuity of care was often cited as being a result of attempts and initiatives to improve access: this has led to dissatisfaction amongst patients, inefficiency of the use of consulting time and perceived reductions in quality of care overall. Extended access is seen by some as a potential solution to access issues, but there is disagreement over whether extended access should be

reserved for certain groups and the limiting factor for extended hours remains workforce capacity.

GP discourse was at odds with that of the patients on a number of topics. For example, GPs appear to perceive that a key role is to protect NHS services from the consumerist discourse, for example, patients booking phlebotomy appointments without discussion with a clinician first. There were concerns that increasing access will inevitably lead to increasing demand, and that patient education and signposting with patients taking more responsibility for their health and increased self-management is vital. All groups, including patients themselves, appeared to agree, in general, that patients should be empowered to have a greater role in managing their own health.

Recommendations

1. Developing an effective and efficient online system requires investment in careful planning and management, including piloting and evaluating. Sufficient project management should be identified to support practices to review current services and implement a more comprehensive online service offer.

2. A key recommendation of this report is the need to engage with low users of online services, for example younger working age people, to identify their concerns and reasons for not using the services. In addition to engagement with low users with need, further analysis of use in the context of need is recommended.

3. In order to optimise the use of online services they should be better promoted using a range of different strategies and effective channels to those currently adopted, for example better designed practice web sites, information on waiting room screens, text messages, emails, leaflets handed out by GPs, information on other letters and prescriptions and a possible national campaign. An evidence-based social marketing approach could be considered to explore which channels of communications would be most effective for different groups within the population.

4. The possibility of expanding the scope of appointments available online should be explored, with the inclusion of adequate patient information to enable patients to select the appropriate appointment for their need, for example, through:

    *   increasing the range of healthcare professionals for which appointments may be booked – nurse appointments are a particular priority for patients
    *   offering clinic appointments online, for example, flu jabs, chronic disease reviews, blood tests
    *   offering flexibility in the length of appointment which is bookable online
    *   offering access to same-day face-to-face or telephone appointments online

5. Patient education; empowerment to self-care and take responsibility for their own health; and clear navigation/signposting at the time of booking appointments online, are all important to managing demand in general practice.

6. Tackling a range of technical issues is likely to improve online service uptake and use by:

   - simplification of registration process, and development of clearer instructions for patients on how to register, use services and troubleshoot
   - improve communication with EMIS (Electronic Information Management System) and explore the possibility of a helpdesk functionality or clear system for feedback for patients and practices to report issues and make changes
   - consider investment in a standard online booking system for use across practices to enable all practices to work together, thereby facilitating the pooling of resources and capacity

7. Consideration should be given to the development of mechanisms by which patients can communicate electronically, or via digital technology with the practice (ensuring data security and clinical safety).

8. A range of access methods should be retained to ensure equity of access for patients, with consideration to prioritising, for face-to-face consultations, vulnerable patients or those for whom online service use is particularly challenging.

9. Further work is needed to address the concerns of GPs and general practice staff regarding patient access to their full medical record, with clear guidance and training needed on implementing this type of access whilst ensuring that patient information remains secure.

10. Continuity of care is a priority for many patients and clinicians. Consideration should be given to exploring how this might be maintained and prioritised in the context of system changes, particularly for vulnerable or frail elderly patients.

11. Recruitment and retention of GPs should remain a priority. The use of the wider workforce should be optimised in order to build workforce capacity and meet demand, particularly in the context of delivering extended access.

12. Optimising the use of extended hours appointments to achieve equity of access should be a key consideration.

1. Introduction

This project was undertaken as a collaboration between NHS England, PHE, Surrey Heath Clinical Commissioning Group (CCG) and Surrey County Council, and supports the national drive to promote online access in general practice which is a key focus of the General Practice Forward View (1). The project was undertaken in 2 phases: the first to analyse patterns of use of GP online services across the Surrey Heath CCG population, and the second to undertake insight gathering work to explore barriers and potential enablers. This paper reports the key findings of the project.

2. Background

2.1. Policy context

General practice has a key role in acting as the 'gatekeeper' to the rest of the healthcare system. Effective organisation and delivery of primary care can potentially manage demand for hospital services and deliver optimal patient outcomes. Accessibility and adequate resourcing is essential to achieving this, but a number of issues pose a challenge.

Demand for GP services has risen sharply over recent decades, driven by a range of factors (1) such as:

- population growth, particularly in the older, frailer, population
- increased burden of chronic conditions and multi-morbidity
- better-informed patients with higher expectations
- increasing non-clinical duties (for example GP representation on CCGs)
- policy drivers for high quality care
- a national drive for better out of hospital care, delivered closer to peoples' homes

Some areas are reported to be suffering from lack of investment and a shortage of GPs, with variation in access to general practice seen across the system (2, 3). There has, therefore, been increasing pressure on the UK's general practice system in recent years which has, in turn, impacted on the wider health and social care economy (4). The issues described above are likely to escalate over the coming years (4).

Recent national policy has focused on the provision of seven-day NHS services. The 2008 Extended Access schemes and, more recently, the 2013 Prime Minister's GP access fund have focused on increasing access by, for example, extending opening hours outside of normal working hours (5). Other than extending GP opening hours, additional strategies to increase access to general practice have included the use of

online and electronic tools/resources and enhancing telephony infrastructure. The benefits of access to online services such as patients' own GP records, online appointment management and repeat prescription services have been described as significant for both patients and GP practices, and include (6):

- better self-management by patients of health and care
- reduction in errors in records
- improved continuity of care through facilitation of record sharing
- more time for professionals within the practice to offer face-to-face contact with those patients who are most in need
- reduction in staff time spent on the administration of repeat prescriptions
- reduction in DNA rates due to ability of patients to cancel appointments online

The ambition to support the adoption of a range of technology initiatives in general practice is a key focus of the General Practice Forward View (1) and aims to:

- promote self-care and self-management for patients
- reduce practice workload
- facilitate practices to work together at scale
- improve efficiency across the whole system

Currently, approximately 70% of general practices nationally use IT systems that support online service options such as booking appointments and ordering repeat medications. Approximately 30% of these practices currently offer these services, but the majority of such transactions that could take place electronically still take place in person or by telephone. Over 50% of practice IT systems support electronic access to patients' own records, but less than 1% of practices actually offer this service (1).

2.2. Surrey Heath CCG

The Surrey Heath CCG (SHCCG) population is around 95,000, with 8 GP practices (10 surgeries) operating within the CCG. Surrey Heath is, overall, an affluent borough. The average life expectancy in Surrey Health for women is 84 years and for men is 81 years, both significantly above the national average (7). Small areas of deprivation exist, however, such as in Old Dean where life expectancy has recently been falling. 58% of the population in Surrey Heath are of working age (20 to 64 years old), with 24% aged 0 to 19 years and 18% aged over 65 years (7).

Improving use of technology and IT within general practice is a priority identified within SHCCG's Primary Care Operating Plan 2017 to 2019 (8). The July 2016 IPSOS Mori GP Survey for Surrey Heath CCG indicated that 44% of respondents did not know what online services were offered by GP Practices and 82% had not used any online services in the last 6 months (8). Twelve percent had used online appointment booking and 13% had used online repeat prescription requests. Compared with results from the same survey in 2015, these results constitute an approximately 1% improvement (8).

It is recognised in SHCCG's Primary Care Operating Plan that more work is required to increase awareness and use of available online services, and to consider the future online offer.

The range of online services currently available within SHCCG are summarised in Appendix 1.

2.3. The application of population segmentation for healthcare

Population segmentation, or grouping of the population, enables a better understanding of the specific characteristics and needs of different groups within the population. This can help to ensure that planning and delivery of care is most relevant and tailored to the local population, and reflects local priorities.

The Mosaic public sector tool is a geo-demographic population segmentation tool which is constructed from census and lifestyle characteristics obtained from a range of data sources. Details on socio-economic factors and socio-cultural behaviour are included with reference to the geographical location. Mosaic allows the segmentation of the population into smaller groups according to individual characteristics and, in healthcare, can be used to produce social profiles of these population groups to, for example, gain insight into population behaviours and identify health needs. Mosaic segments the population into 15 Groups and 66 Types, based on their postcode. More information relating to the use of Mosaic in healthcare can be found in section 2.2 of Appendix 2, and an overview of Mosaic Groups and Types.

2.4. Recent Healthwatch research

Healthwatch Surrey published 2 reports on the subject of GP Online Services during the timeframe of this project (9,10).

In December 2017, as part of 'GP online: Even better if…', Healthwatch visited 8 GP surgeries across Surrey during Get Online Week (30 September to 6 October 2017) and also circulated an online survey (9).

A total of 162 people completed the survey. The most commonly used online services were online appointment booking and online repeat prescriptions.

Reasons given by people for not using online services

Lack of awareness of online services:

"I didn't know about online services but I will ask my GP and join asap!"

"There needs to be more information on what is available and how to use it."

Lack of range/availability of appointments:

"Future appointments only seem to be available at 3 weeks plus."

"It would be nice to be able to book online appointments with a nurse when necessary."

"It would be good to be able to book flu jabs online."

"More forms available online – for example I recently needed some travel vaccinations. I had to pop in to the practice during opening times to pick up the form, then drop in again to hand it in."

"The only thing is that they release appointments really early in the morning so if you're not on there by 6.30am you might not get one."

Frustration with the sign-up process and difficulty resetting passwords:

"Complex user name of random numbers – not memorable."

"I spent ages getting the codes and setting up all of my family but the first time I went to use it the system wouldn't work and locked me out of the accounts and according to their (rubbish) helpdesk, the only way I could get access was go in to surgery and start it all again."

Concerns regarding security of personal information:

"I would like confirmation that the most up to date version of their operating system with firewalls and virus protection are in use."

"I won't use online; I distrust it totally."

A preference to speak to someone in person or over the phone:

"I can use the internet but I prefer to come in and speak to someone face to face who knows me... I don't like not knowing who is behind the screen. I'm retired and live nearby so it's easy to come in."

"No, I don't like technology and I don't even have a mobile phone; I prefer the traditional way."

Not using GP services very often:

> "I don't visit the doctor very often so haven't felt it necessary. I usually only need on-the-day appointments."

> "I'm not often at the doctors, too young for it to be worthwhile."

More recently, Healthwatch Surrey again visited GP surgeries across Surrey during Get Online Week (15 to 19 October 2018) (10). They spoke to 242 people across 7 surgeries. They found:

- 25% were already using GP online services
- 15% lacked internet access so could not use services
- 19% said that they preferred face to face contact or to telephone to book appointments
- 17% were not aware of GP online services
- 3% had forgotten their log in details
- 1% did not use online services due to 'less availability of appointments online'

Additionally, 24 of the 242 people in the study carried out a more detailed survey. This found:

- 83% of this group said they would use online services to booking appointments and for repeat prescriptions
- 79% said they would use online services to view test results online
- 54% said they would use digital GP consultations via email/submitting a form

Concerns/barriers to using online services raised by participants include:

- confidentiality/security
- complexity
- unreliability
- worry that online services may replace face-to-face contact with GP (which patients prefer)

3. Aims and objectives of this project

To achieve a better understanding of the needs of segments of the populations in terms of the use of online services relating to general practice through:

- reviewing the evidence relating to the effectiveness of online services to support general practice
- using the Mosaic Public Sector Tool to segment the Surrey Heath CCG population according to their use of online services, thereby identifying groups which are more and less likely to use these services
- analysing the use of online services by the Surrey Heath CCG population to identify any associations between patterns in usage and demographic factors
- conducting insight gathering work to explore barriers and enablers to the use of GP online services

4. Rationale for project

The ambition to support the adoption of a range of technology initiatives in general practice is a key focus of the General Practice Forward View and reflects evidence of benefit to capacity within, access to and satisfaction with general practice amongst other benefits.

Learning from the New Models of Care programme indicates that poor awareness and uptake of online services is a national finding, not unique to Surrey Heath.

Population segmentation according to the use of online services relating to general practice can enable a better understanding of the specific characteristics and needs of different groups within the population. Achieving a good understanding of the uptake of, and barriers to accessing, online services amongst different population groups will help inform future planning and delivery of these services.

Learning from this project will be relevant nationally.

5. Methodology

5.1. Scoping and agreement with partners

The agreed scope for the project can be found in Appendix 2.

5.2. Literature review

A review of current evidence relating to strategies designed to increase access to general practice, with a specific focus on the use of online services in general practice, was undertaken. This comprehensive work can be found in Appendix 3. Key findings are described in section 6.1.

5.3. Phase 1: quantitative analysis of online transaction data

Data relating to online transactions for the Surrey Heath CCG GP registered population was accessed by Surrey Heath Community Providers Ltd. The period of data collection was from 4 August 2016 to 3 August 2017. The brief for the data collection can be found in Appendix 4.

In order to deal with data quality complexities in the raw data, the dataset was split into 2 sets: one looking at service registrations; the other looking at service usage (appointments and prescription requests).

The service registrations dataset was cleaned to remove all duplicates leaving only records representing unique people:

- where it was evident that a unique ID was being used for more than one person, these entries were given a new unique ID and remained in the dataset
- where an individual had conflicting registration responses the record with the most affirmative responses remained
- an age band, count of service registrations and count column were added

The service usage dataset remained in raw form to count instances of activity:

- an age band, band for booked to time slot and band for cancelled time from slot time were added

Pivot tables and charts were used to explore and present the results for both the service registration and service use datasets.

The Mosaic Population Segmentation Tool was used to segment the Surrey Heath CCG total population and the population registered to use online services (the 'data population').

A full postcode was required for Mosaic analysis. To comply with Information Governance procedures, a full patient postcode could not be shared with PHE. Surrey County Council devised a solution using VLOOKUP in Excel which used the postcode to return the relevant Lower Super Output Area (LSOA). Postcodes and the link between the postcode and LSOA code were then removed by Surrey Heath Community Providers Ltd before the data was shared.

Mosaic Group profiles were produced for the data population compared to the general Surrey Heath CCG population. In addition, profiles for the 3 Surrey Heath CCG Integrated Care Team areas were produced using the Output Areas for their specific catchment areas as the base.

Mosaic Group profiles for each online service that people have registered for were produced'

5.4. Phase 2: insight gathering

Approval for insight gathering work to explore barriers and enablers to the use of GP online services was granted by the PHE Research Ethics and Governance Group (REGG) on 25 January 2018.

Patient groups were targeted based on the Phase One analysis and knowledge of the evidence base. We sought to achieve good representation within the focus groups of patient groups who are typically high users of GP online services, and typically low users; patients for whom access to healthcare in general is typically poor; and across the general practice team.

We worked with Surrey County Council to identify Mosaic Types who had higher and lower levels of registration for online services in the study population compared to the Surrey Heath general population.

For each over-represented and under-represented Mosaic Type, we chose the output area which had the highest percentage of the resident population being our Mosaic Type of interest and invited a random sample of patients from the relevant linked postcodes. The over represented Mosaic Types (high users) were B09 Diamond Days, B08 Premium Fortunes and N58 Aided Elderly. Under represented Mosaic Types (low users) were A04 Village Retirement, H30 Affordable Fringe, F23 Solo Retirees, H33 New Foundations and L52 Midlife Stopgap.

We also used additional purposive sampling to invite additional high users from our online services usage data and a random sample of registered non-users (low users) also identified from our usage data. We aimed to match the number of Mosaic Types invites with invites to the highest users of services/registered non-users.

Surrey Heath Community Providers Ltd (the federation of GP practices for Surrey Heath CCG) carried out the identification of patients and made phone calls/posted out participant information sheets, topic guides and consent forms with a personalised covering letter from the patient's own doctor explaining the study. PHE did not have access to any patient identifiable information and patients were aware of this. Patients were asked to contact Surrey Heath Community Providers Ltd if they were prepared to participate, or if they had any queries relating to the project.

Due to a low take-up rate for the focus groups, further Mosaic Types and an additional random sample of low users from our online services usage data were provided to Surrey Heath Community Providers Ltd. Further Mosaic Types (low users) were N61 Estate Veterans, F25 Classic Grandparents, E21 Family Ties, H35 Primary Ambitions and N59 Pocket Pensions. In total, over 200 letters were sent and 76 phone calls made to low users of online services.

Surrey Heath Community Providers Ltd kept a list of who had been invited and tracked responses. Patients who did not respond to invites were contacted by telephone, and verbal feedback from patients who did not wish to participate was recorded with consent.

Exclusions were children aged less than 16 years old, vulnerable adults and people who were physically unable to come to the focus groups. Family members of patients who were unable to attend in person were welcome to come to give the views of their relative.

For the GP focus group, Surrey Heath CCG offered a slot during a scheduled GP Steering Group meeting.

For wider practice staff focus groups, PHE worked with Surrey Heath Community Providers Ltd to identify 2 GP practices to participate. Practice Managers were asked to cascade the information and invitation to all practice staff.

We initially conducted 2 pilot focus groups within PHE offices to optimise questions and focus group materials. These were a participant information sheet, participant consent form and a topic guide.

We then conducted 2 focus groups with high users of online services, 2 focus groups with practice staff and one focus group with GPs.

Audio recordings were made of each focus group. Each focus group audio recording was then fully transcribed and checked. Preliminary themes were identified and reviewed, leading to the development of the final list of themes (Appendix 5). Transcripts were colour coded and themes from the different groups were combined to aid the analysis.

6. Results

6.1. Literature review

The entire literature review can be found in Appendix 3. This has been summarised in the key findings below.

6.1.1. General findings from literature review

The use of technology in healthcare is constantly evolving, with the evidence base for interventions growing accordingly.

A 2015 systematic review by Mold and others (11) explored the impact of patient access to online services on the provision, quality, and safety of health care, and found that the use of online services increased satisfaction, convenience and patient-led safety improvements, for example identification of medication discrepancies with the potential for severe harm. There was also a moderate increase of email, no change on telephone contact and variable effects on face-to-face contact.

The Nuffield Trust report The digital patient: transforming primary care? (12) reviewed the evidence relating to digital technology and its impact on patients in primary care and the NHS found that there is a high degree of uncertainty regarding how health-related digital technology will impact on demand for services, clinical workload and health outcomes, and that there is a current lack of evidence in many areas. Additionally, access to online services alone will not necessarily lead to patient engagement with self-management of their health conditions – this will require education and support from highly skilled staff (11).

An observational study by Newbould, J and others of telephone triage by GPs has recently been shown to increase average GP consulting time with no evidence of a reduction in secondary care costs (13).

6.1.2. Evidence for specific technologies

The Nuffield Trust's The digital patient: transforming primary care? report found that the patient experience can be improved by online appointment booking and repeat prescriptions ordering, but there is little evidence for associated increased administrative efficiency (12).

Mold and others' 2015 systematic review in 2015 found that online access to test results is also associated with greater patient satisfaction compared to in person or by telephone (11).

The Nuffield Trust's report The digital patient: transforming primary care? highlighted the lack of good quality evidence for remote consultations but found that email consultations increase communication, save patients time and increase overall satisfaction, with mixed evidence on their impact on demand (12). A 2017 pilot observational study in 36 general practices in South West England showed that the use of e-consultations in the UK primary care is very low (14). NHS England highlights the greater discretion and convenience (particularly for those with mobility issues) offered by online appointments but notes the challenges regarding lack of verbal cues and the potential for excluded groups (3).

A 2017 Systematic Review and Thematic Synthesis explored the experiences of cancer survivors with Telehealth and showed that Telehealth interventions ("personalized care delivered from a distance") can provide reassurance and independence for individuals living with cancer (15). The Department of Health-funded Whole System Demonstrator cluster randomised trial also showed that telehealth is associated with lower mortality and emergency admission rates (16).

The Nuffield Trust's The digital patient: transforming primary care? report and a 2011 systematic review exploring the use of telephone and Short Message Service (SMS) reminders to improve hospital appointment attendance highlight that SMS appointment reminders have been shown to be effective in reducing rates of missed hospital appointments (12,17). However, there is evidence from a randomised control trial in Scotland, which assessed the effectiveness of appointment reminders by text to patients who repeatedly fail to attend their general practice appointments, that text reminders may not significantly reduce non-attendance rates (18).

6.1.3. Use of online services

A systematic review found that certain groups show increased use of online access to electronic health records and other linked online services (11). These are:

- females
- those middle aged or older
- those with much greater overall morbidity

Certain groups appear less likely to use digital services or to be potentially disadvantaged (3,11,19). These are:

- individuals with a disability (NHS England report)
- groups with no regular access to the internet such as the homeless, offenders, Gypsy, Traveller and Roma communities (NHS England report)
- people with low computer literacy (case study)
- some people in rural communities (NHS England report)
- adults over the age of 65 years living alone (NHS England report quoting an Office for National Statistics bulletin) – by contrast, our study found that the peak age groups for booking appointments online were 65 to 69 years and 70 to 74 years although our study did not explore whether or not these members of our study population lived alone
- people aged over 65 – the highest users of online services
- people of non-white ethnicities (systematic review)
- people from lower socioeconomic groups (systematic review)

Evidence for methods of increasing uptake of online services comes from experience at 2 primary care clinics (one in USA and one in Australia), the Nuffield Trust's report The digital patient: transforming primary care? and evaluation work undertaken by AT Medics – an organisation that manages 32 practices across London, one of which has London's highest uptake and usage of online services. Evaluation indicates that methods effective in increasing online service uptake by patients in primary care (12,19-22) are:

- personalised communication from the healthcare professional to raise awareness – endorsement by GPs and reassurance regarding safety of online services is particularly important
- actively showing patients how to use services (possibly in a patient's first language)
- demonstrating benefits of using online services clearly to patients
- resources additional to online medical records to help patients understand what the record contains and how to interpret it and use it to aid self-management

- working with Patient Participation Groups to inspire other patients to use the service
- low complexity of the online system
- using multiple channels of digital communication such as SMS, email and the web
- provision of facilities, for example, kiosks, within practices for those with no internet access at home
- providing training to staff to remind patients that online services are available and offering them help with registration and initial usage
- a promotional video used during a face-to-face appointment resulted in significantly higher patient portal registrations and use of portal messaging

6.1.4. The patient perspective

There is good evidence that many patients like online services and want to use them (23-25).

De Lusignan and others' 2014 study assessed the effect of giving patients online access to their electronic health record and other online services on healthcare provision, quality and safety, and indicated that online services are linked to an increase in convenience and satisfaction for patients (26). Advantages of the use of these services have been found to include being able to use the service out of hours and a reduction in waiting times (19).

There is evidence from a national survey of patient experience of general practice in England that the use of online services enhances access for certain groups, including individuals working full-time and those unable to take time off to see a GP (5).

Patients reported a number of benefits to accessing care online (11,20,27). Accessing medical records gives patients information and power, for example, spotting medication errors, enabling greater autonomy with self-care and increasing opportunities for prevention (11,20,26).

6.1.5. The clinician perspective

Clinician reported experiences of online services have been mixed. There are several concerns including workload (particularly patient access to full medical records and email), training, technology, confidentiality and governance (11,12,20,28-31).

6.1.6. Comment – October 2018

This literature review was completed in December 2017. Online services in general practice is a rapidly evolving area and a report detailing Care Quality Commission (CQC) inspections of companies offering online healthcare was published in March

2018 (32). Between November 2016 and July 2017, 35 providers of online healthcare were inspected and many of these were re-inspected in February 2018. Many providers have responded to concerns from the CQC and are making changes to improve safety of online services (33). However, as at February 2018, 43% of providers were not fully compliant with safety standards, with concerns including issues with information sharing, monitoring long-term conditions and inappropriate prescribing (32).

Overall evidence for the safety and benefit of online services is still awaited, together with evidence regarding whether these services will improve or worsen health inequalities (34).

Additionally, there has recently been a renewed focus on continuity within healthcare. The first systematic review investigating the association between continuity of care and mortality was published in 2018 and showed higher continuity of care to be associated with lower mortality rates (35).

As a GP wrote in a recent letter to the British Medical Journal (BMJ): "I urge policy makers at CCGs and NHS England… to strengthen the role of the named accountable GP… It may not be new and fancy. It is not vanguard nor blue sky. But we know it works." (36)

6.1.7. Addendum June 2019 – Patient access to online medical records

A key issue identified in this study was patient access to their full medical record. A summary of evidence identified by this report for access to medical records is given below, together with examples of innovative practice.

Evidence for patient access to medical records

In 2016, the Nuffield Trust identified studies indicating that 80% of patients wish to view their medical records (12). However, a 2015 Forbes poll of 2,300 UK and US doctors showed that only 34% of doctors felt that patients should always have access to their entire medical record (37).

Characteristics associated with increased use of online access to medical records and linked services (11) are:

- female
- middle age or older
- increased morbidity

Characteristics associated with decreased use of online access to medical records and linked services (11) are:

- Medicaid (vs other commercial insurance)
- African-American
- other non-white ethnicities
- female with lower socioeconomic classification

Positive findings relating to patient access to medical records

A 2015 systematic review in primary care found that patient access to medical notes improved communication and led to increased medication adherence and increased detection of medication inaccuracies with potential for severe harm (11).

A 2008 randomised controlled trial showed that patients with type 2 diabetes were more likely to have their medication doses changed when they have access to a web-based personal health record (38).

A 2012 randomised controlled trial showed that providing patients with health maintenance reminders via a personal health record may be effective in improving some elements of preventive care (39).

A 2016 Nuffield Trust report found that access to medical notes "engages patients, often leading to improved communication, adherence to lifestyle advice and shared decision-making. It also tends to be highly valued by patients" (12).

Ninety-nine percent of patients and 75% doctors reported that they wished to continue using OpenNotes after the US trial (20).

A 2017 BMJ feature found that two-thirds of patients felt more in control with access to their medical record (20).

A 2014 UK study in 2 general practices found that record access led to a reduction in both appointments and phone calls equivalent to a cost saving per patient per year of £44.39 (40).

A BMJ blog identified that patients had increased understanding of their conditions and were more concordant with treatment (41).

A 2016 US journal commentary highlighted medical notes as an opportunity to support patients and highlight their achievements (42).

Negative findings relating to patient access to medical records

A 2015 systematic review in primary care found that the impact on patient use of face-to-face services and telephone calls was unclear. The study also found that 3% to 36%

clinicians altered the contents of medical record content in response to patient access and 0% to 21% reported needing extra time in writing notes (11).

The Nuffield Trust found that access to medical notes "has the potential to increase GP visits, telephone encounters, A&E visits and hospitalisations and we do not have robust evidence on its impact on health outcomes". There are also a number of governance concerns which are:

- granting record access to vulnerable patients
- the extent to which third-party information is shared
- restricting access or redacting records – this takes considerable resource and a new business model is required (12)
- doctors' increased time writing and editing notes – a 2017 BMJ feature highlighted that 11% of doctors reported this (20)
- help for patients to understand data in their medical records – a 2017 BMJ response highlighted this (43)
- privacy – in one US study, approximately one-third of patients accessing online medical records had concerns regarding privacy (44)

Examples of innovative practice

Sweden is the international leader for access to medical records. Patients are able to insert their own data and comments into their record. Physicians were initially concerned that complete access might prove distressing to patients and were worried that access would take place out of office hours when help and support would not be available. However, an ongoing research study has not found evidence for this and has actually found a decrease in user activity at weekends (20).

In the US, the OpenNotes study states that "two-thirds of patients reported a better understanding of their health and medical conditions and that they were taking better care of themselves, doing better with taking their medications, and feeling more in control of their care. For clinicians, only 3% spent more time answering patient questions outside visits and 11% spent more time writing or editing notes" (20).

Also in the US, Kaiser Permanente has introduced technology so that patients can communicate with physicians using secure messaging. Messages and replies are automatically incorporated into the patient's electronic record (23).

At Haughton Thornley Medical Centres, Manchester, approximately 50% of patients have access to their records. Any mistakes in notes have been corrected. The practice monitors who accesses their records and has targeted unengaged groups. This has enabled patients to self-manage and allows patients to prepare for consultations.

Records can also be shared with other individuals such as those in secondary care (12).

Manor House, Manchester has allowed full access to medical records routinely. This has been associated with reduced calls and appointments (45).

Hulme Hall Medical Group, Manchester has undertaken work to remove jargon from medical records and has reported that patients are more engaged with their care (46).

6.2. Phase 1 results

6.2.1. Baseline availability of online services at Surrey Heath CCG: GP practices

All 8 practices currently provide access to:

- DCR (detailed coded record) – patient coded medical record
- online prescription ordering
- online appointment booking – advanced appointments
- SMS reminders

In addition:

- 6 of the 8 practices provide access to pathology test result
- 6 of the 8 practices provide online appointment booking of same day appointments
- 6 of the 8 practices allow at least partial email communication with the practice
- one practice allows appointment booking with a nurse or HCA
- one practice allows appointments to be booked online for an INR clinic
- one practice uses online signposting to services and health improvement information
- no practices use FaceTime or Skype to communicate with patients

6.2.2. Data analysis from GP Federation dataset

The source for the data in this section is Surrey Heath Community Providers Ltd. Data were accessed during September 2017.

Registrations for online services

Approximately one-third of the GP registered population of Surrey Health CCG (35,340 people) were found to be registered to use at least one GP online service. Frimley Green Medical Centre (7,184 patients) and Park Road Surgery (5,294 patients) had the highest absolute number of patients registered to use online services. Station Road Surgery (56%) and Heatherside Surgery (50%) had the highest proportion of their list size registered to use online services (Figure 1).

Figure 1. Number of patients and percentage of list size registered to use online services by GP practice

Number of patients and percentage of list size registered to use online services by GP Practice
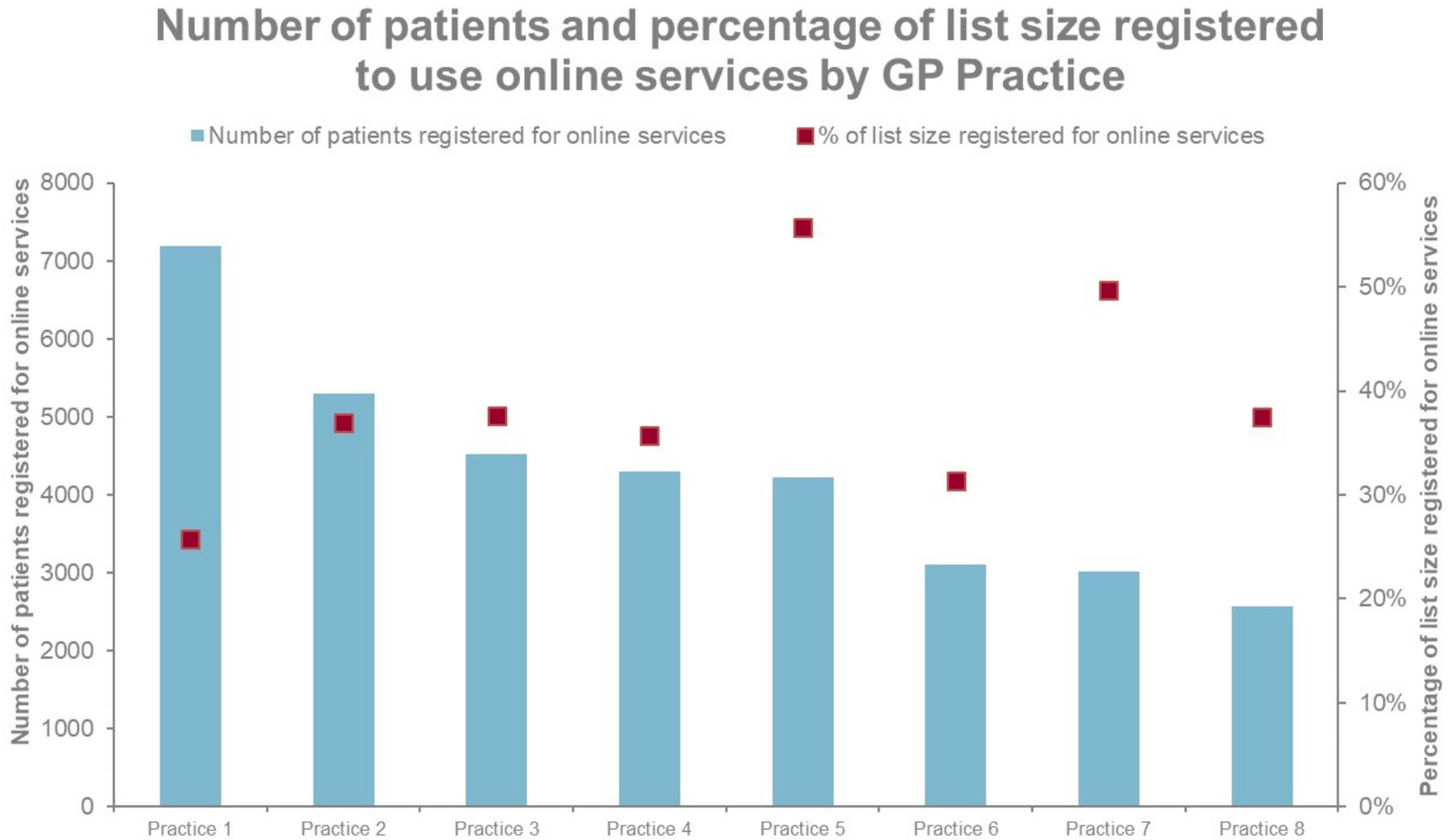
The most popular services for which patients had registered were online appointment management and online prescription requests (Figure 2). A greater proportion of women (54.8%, 19,362/35,340) compared with men (45.2%, 15,978/35,340) were registered for online services.

Figure 2. Number of people registered by individual service

Number of people registered by individual service
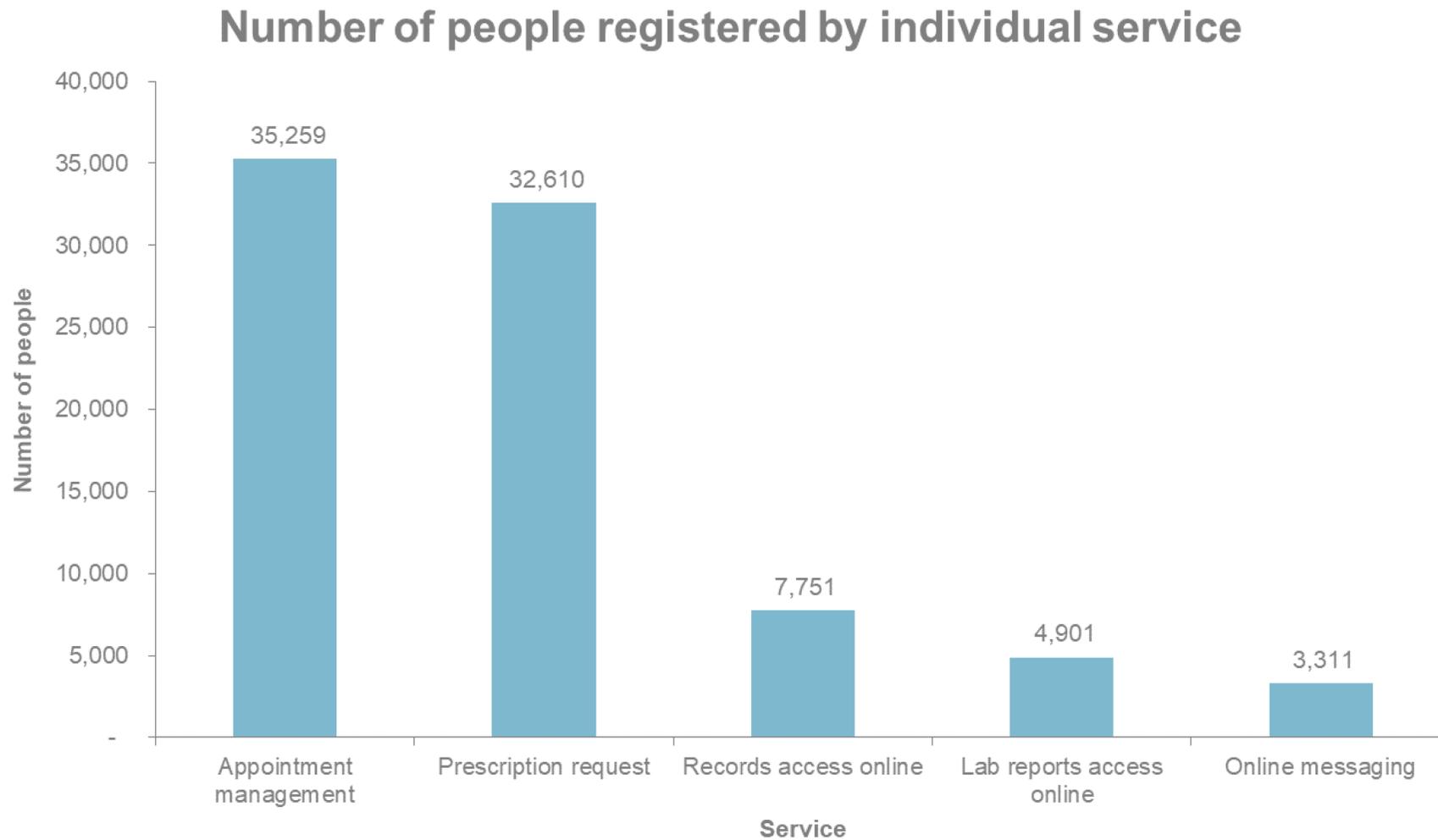
Age bands 45 to 49 and 50 to 54 years were most likely to be registered for at least one service (Figure 3).

Figure 3. Number of people registered for at least one service by age band

Number of people registered for at least one service by age band
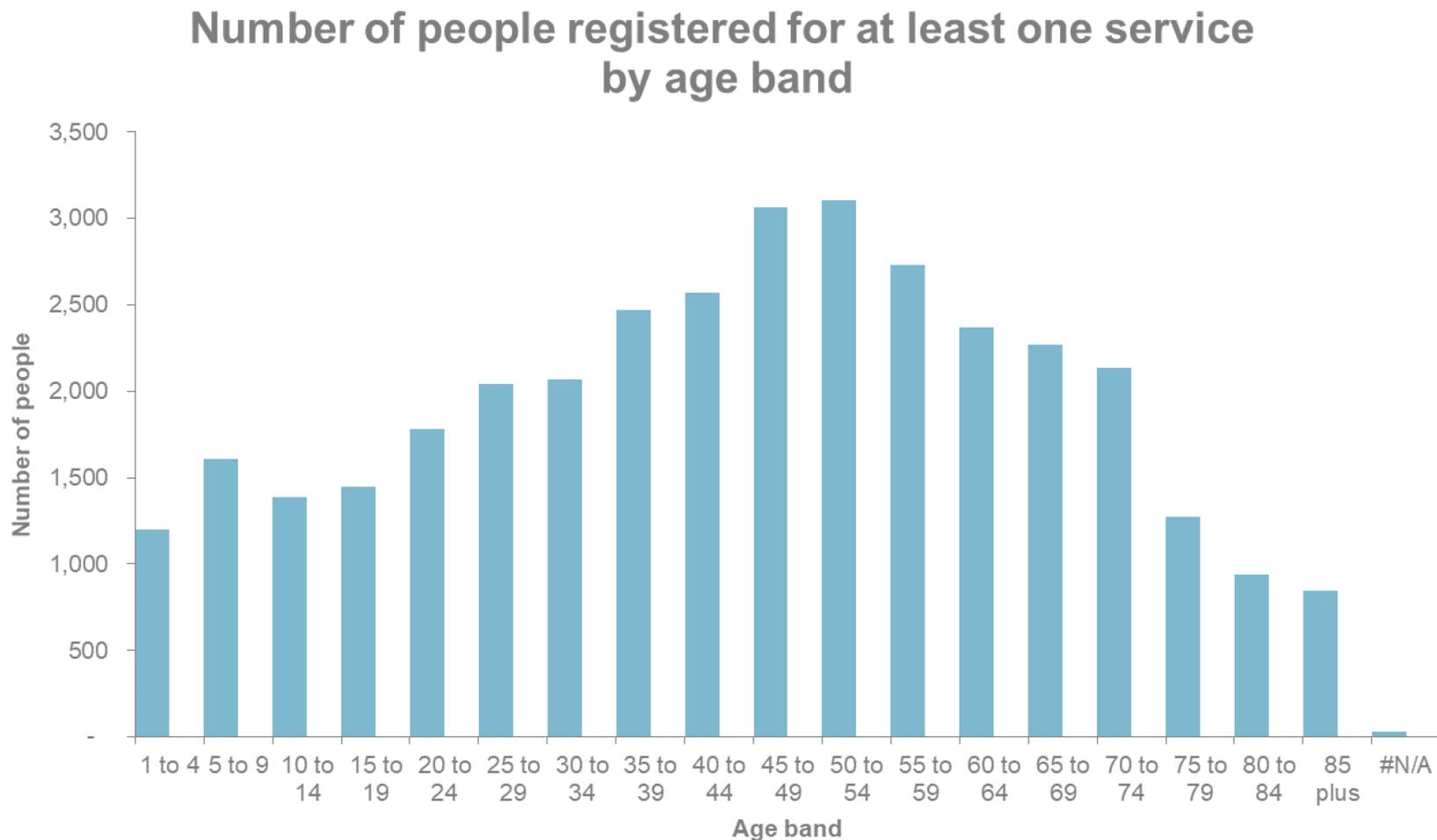
Online appointment management

Fifteen thousand, seven hundred and twenty-six initial appointments were made over the one-year data collection period (not including cancellations and appointments which were rebooked). Therefore, the majority of people who are registered for appointment management did not book an appointment online.

Appointments were most likely to be booked online by ages 40 to 75 years, the peak age groups being 65 to 69 years and 70 to 74 years (Figure 4).

Figure 4. Number of appointments by age band

Number of appointments made by age band
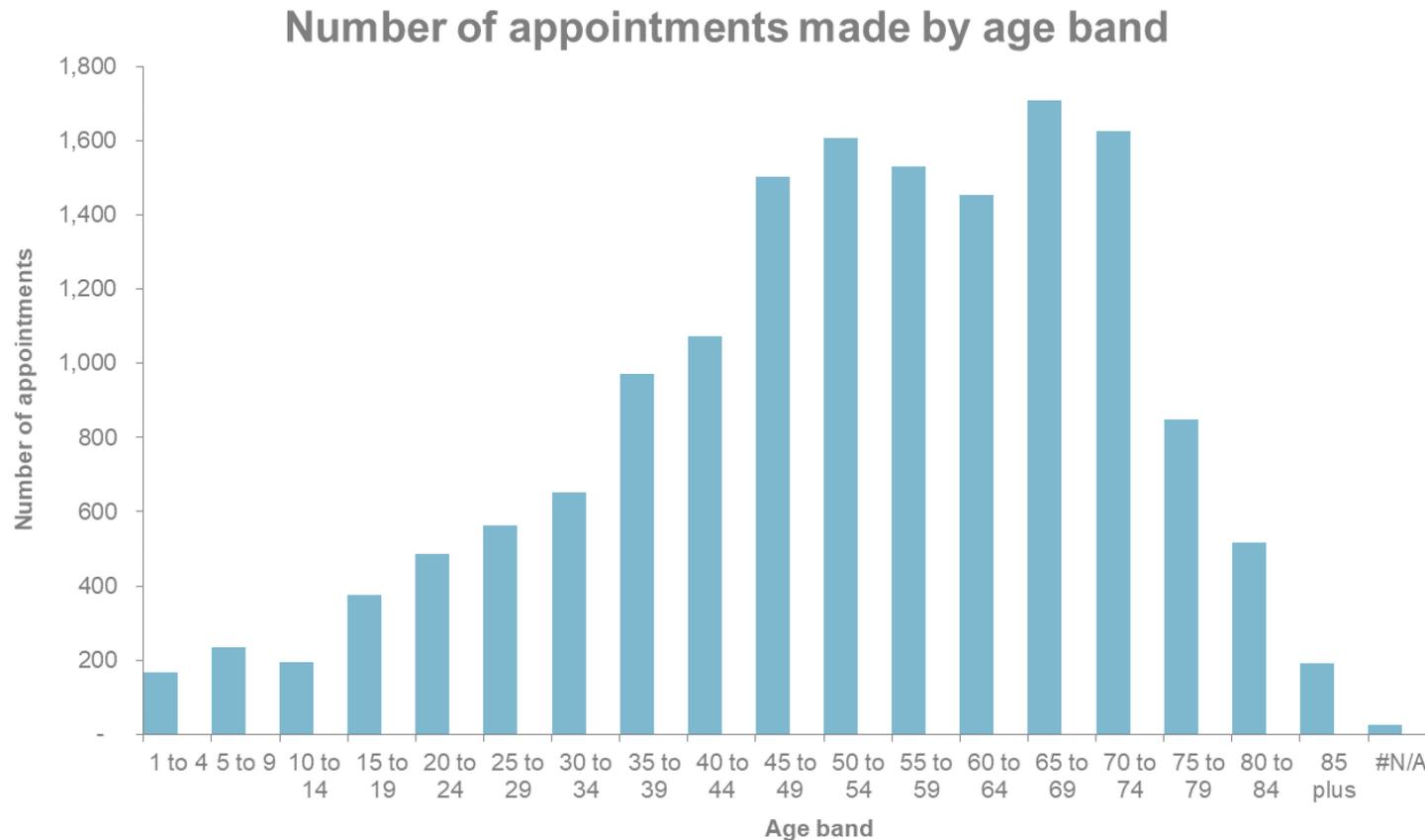
Figure 5 highlights the number of people having multiple appointments and the number of appointments they account for. 64% (3,850/6,042) of patients made one to 2 appointments online; 22% (1,322/6,042) made 3 to 4 appointments online and 14% (870/6,042) made 5 or more (of whom 2% (117/6,042) made 10 or more appointments online).

Figure 5. Number of initial appointments made per person
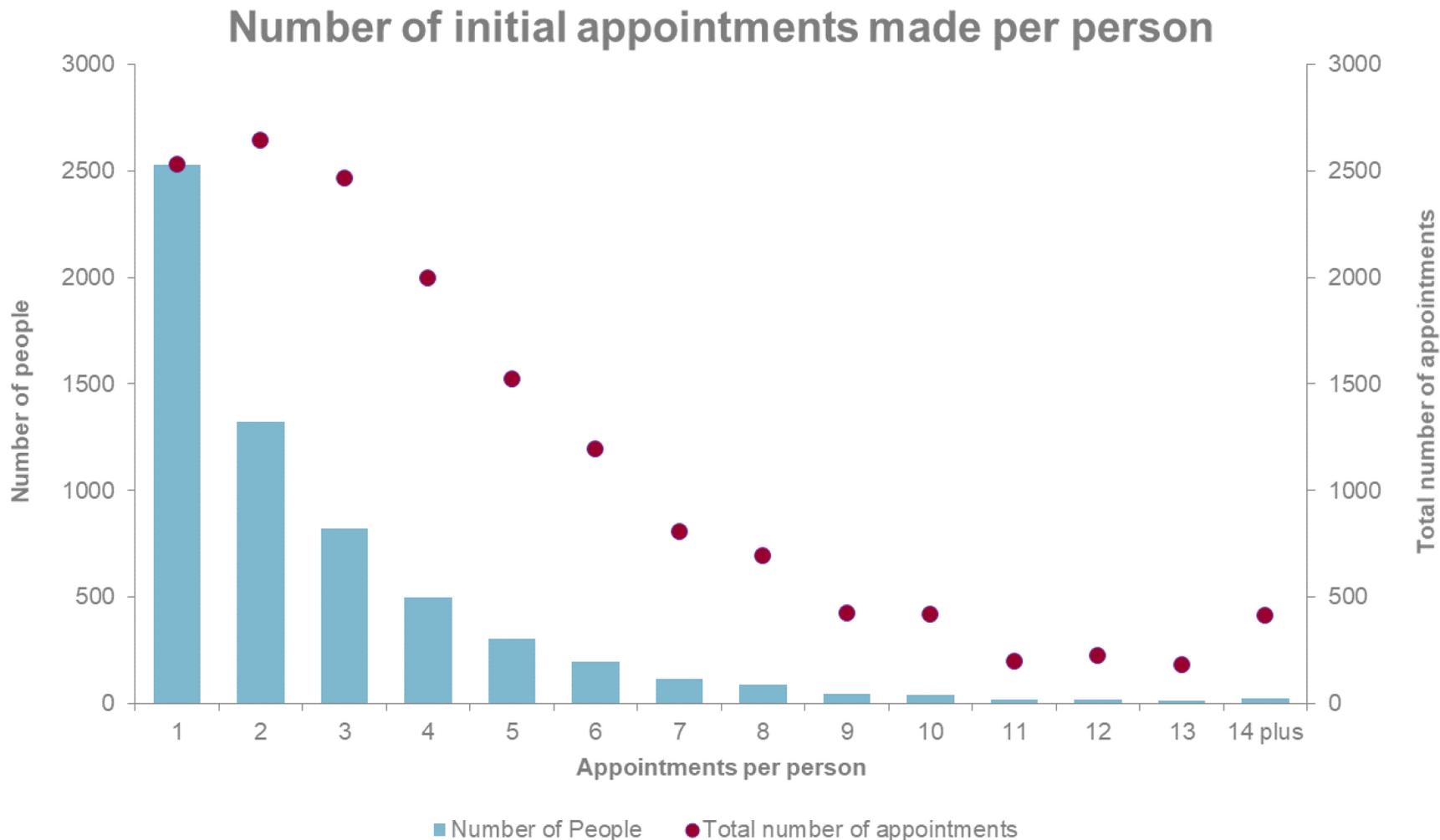
Online prescription management

Forty-one thousand, nine hundred and twelve online prescription requests were made over the data collection period: 50.5% (21,165/41,912) by females, 46.9% (19,657/41,912) males and 2.6% (1,090/41,912) unknown. The peak age bands were 70 to 74 years and 65 to 69 years (Figure 6).

Figure 6. Number of prescription requests by age band

Number of prescription requests by age band
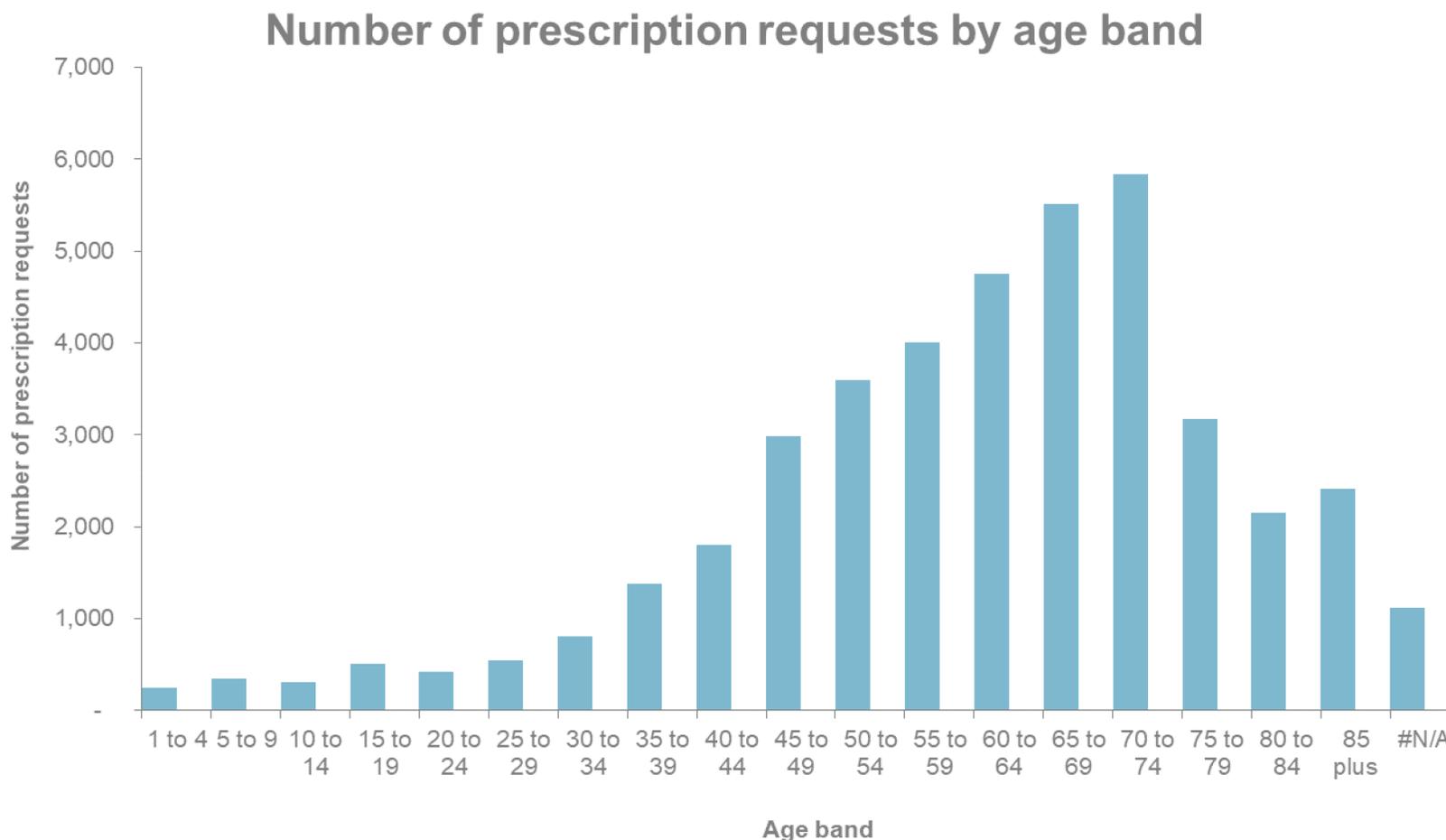
Forty-nine percent (2,783/5,714) of patients made between one and 5 prescription requests online; 26% (1,492/5,714) of patients between 6 and 10; 18% (1,052/5,714) between 11 and 15; and 7% (391/5,714) of patients made 16 or more prescription requests online (Figure 7).

Figure 7. Number of prescription requests per person

Number of prescription requests per person
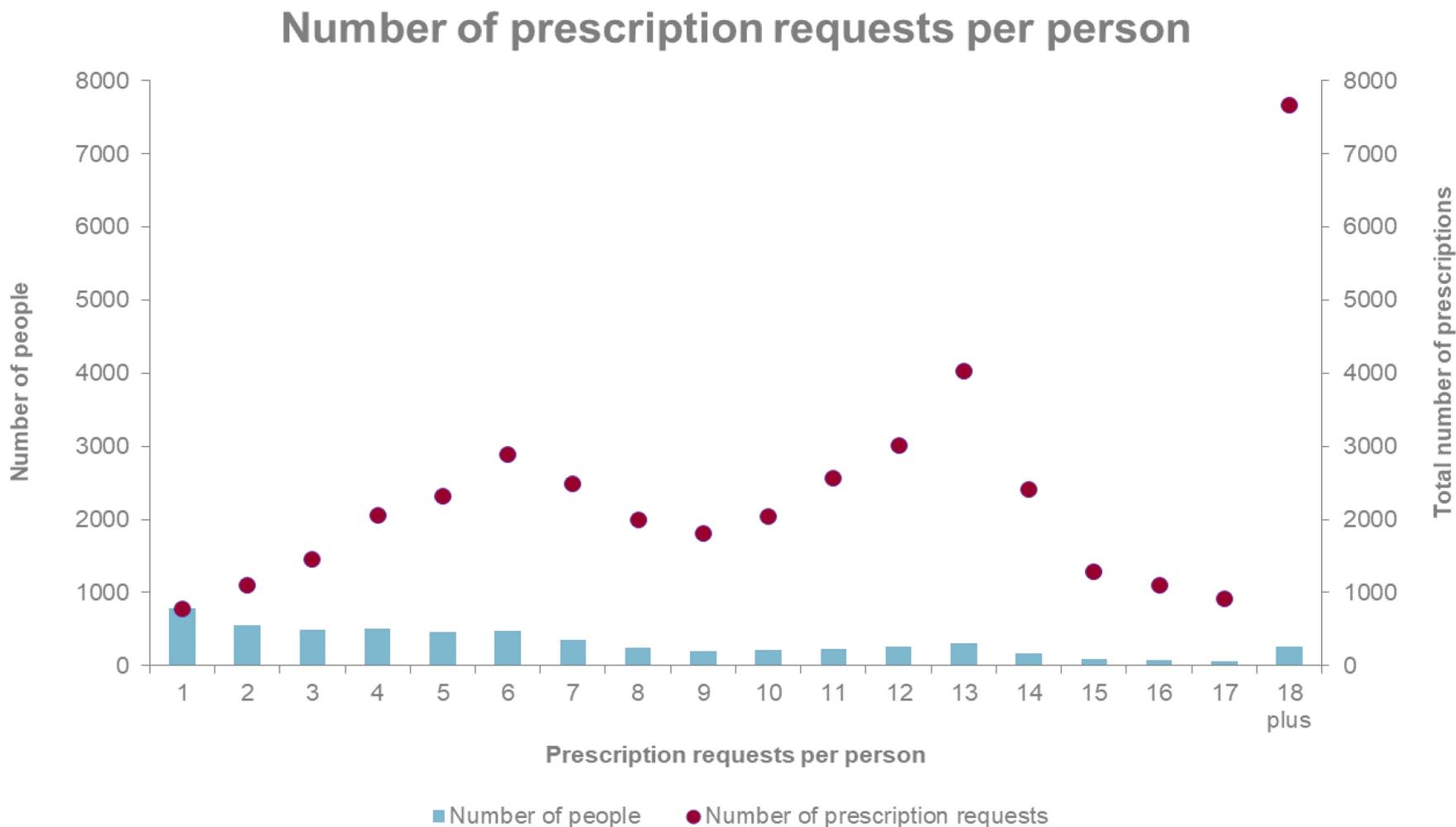
6.2.3. Mosaic analysis

The dominant Mosaic Groups recorded from the data population are as follows and are also illustrated in Figure 8:

Figure 8. Mosaic types of patients registered for online services compared to the Surrey Heath general population

Mosaic Types of Patients Registered for Online Services compared to the Surrey Heath General Population

Mosaic type	Patients Registered for Online Services	Surrey Health General Population
A - Country Living	0.3%	0.5%
B - Prestige Positions	39.5%	33.5%
C - City Prosperity	0.2%	0.1%
D - Domestic Success	19.8%	20.6%
E - Suburban Stability	2.5%	3.3%
F - Senior Security	9.3%	10.7%
G - Rural Reality	0.1%	0.1%
H - Aspiring Homemakers	9.9%	11.9%
I - Urban Cohesion	1.4%	1.1%
J - Rental Hubs	6.8%	6.4%
K - Modest Traditions	0.4%	0.3%
L - Transient Renters	0.4%	0.6%
M - Family Basics	6.8%	8.0%
N - Vintage Value	1.9%	1.9%
O - Municipal Challenge	0.4%	0.5%
U - Unclassified	0.3%	0.5%

35

B - Prestige Positions 39.5% (Surrey Heath general population 33.5%)
B07 Alpha Families 12.6% (Surrey Heath general population 10.5%)
B09 Diamond Days 9.5% (Surrey Heath general population 7.0%)
B06 Bank of Mum and Dad 7.8% (Surrey Heath general population 7.2%)
B08 Premium Fortunes 5.6% (Surrey Heath general population 4.4%)
B05 Empty-Nest Adventure 3.9% (Surrey Heath general population 4.4%)

D - Domestic Success 19.8% (Surrey Heath general population 20.6%)
D17 Thriving Independence 12.2% (Surrey Heath general population 12.7%)
D16 Mid-Career Convention 3.1% (Surrey Heath general population 3.5%)
D14 Cafes and Catchments 2.8% (Surrey Heath general population 2.7%)
D15 Modern Parents 1.7% (Surrey Heath general population 1.7%)

F - Senior Security 9.3% (Surrey Heath general population 10.7%)
F22 Legacy Elders 7.0% (Surrey Heath general population 7.6%)
F23 Solo Retirees 1.2% (Surrey Heath general population 1.7%)
F24 Bungalow Haven 0.6% (Surrey Heath general population 0.7%)
F25 Classic Grandparents 0.5% (Surrey Heath general population 0.7%)

H - Aspiring Homemakers 9.9% (Surrey Heath general population 11.9%)
H35 Primary Ambitions 4.8% (Surrey Heath general population 6.0%)
H34 Contemporary Starts 3.7% (Surrey Heath general population 3.7%)
H33 New Foundations 0.7% (Surrey Heath general population 1.2%)
H32 Flying Solo 0.7% (Surrey Heath general population 0.7%)
H30 Affordable Fringe 0.1% (Surrey Heath general population 0.3%)
H31 First-Rung Futures 0.0% ((Surrey Heath general population 0.0%)

Of these groups, Prestige Positions, Domestic Success and Aspiring Homemakers are Mosaic Groups which typically exhibit high levels of technology use, including internet use. The Senior Security Group are, however, typified by a dislike of new technology. A full description of all Mosaic Groups and Types and their typical characteristics can be provided if required.

The Mosaic Groups under-represented and over-represented within the GP Federation dataset compared with the Surrey Heath CCG general population are shown in Figure 8. This graph allows both the absolute and relative differences between the datasets to be visualised. Each of these groups has subgroups ("Types") which can be explored.

For example, there is a large, absolute over-representation within the data population relative to the general Surrey Heath CCG population of the Group Prestige Positions (39.5% vs 33.5% respectively). There is also a moderate absolute under-representation within Aspiring Homemakers (9.9% vs 11.9% respectively).

The absolute under-representation within Suburban Stability (Group E) is smaller (data population 2.5% vs general population 3.3%) but as a relative percentage to the background rate this will be a much greater difference.

Mosaic analysis was subsequently used to identify Types with the most extreme differences in representation between the GP Federation dataset compared to the SHCCG general population (Figure 9). An index value of 100 indicates equal representation between the patients registered for online services and the Surrey Health general population. An index above 100 means the Mosaic Type is over-represented in the population registered for online services compared to the Surrey Health general population. An index below 100 means the Mosaic Type is under-represented in the population registered for online services compared to the Surrey Health general population.

Figure 9. Most over-represented and under-represented Mosaic types of Surrey Heath patients registered for online services compared to the Surrey Heath general population

The most over-represented and under-represented Mosaic types of Surrey Heath patients registered for online services compared to the Surrey Heath general population

An index value of 100 indicates equal representation between the patients registered for online services and the Surrey Heath general population.

A04 - Village Retirement   57
B09 - Diamond Days   135
E20 - Boomerang Boarders   53
H30 - Affordable Fringe   26
K46 - Self Supporters   148
N60 - Dependent Greys   143

Mosaic type

0   100   200

Under-represented types   **Index**   Over-represented types
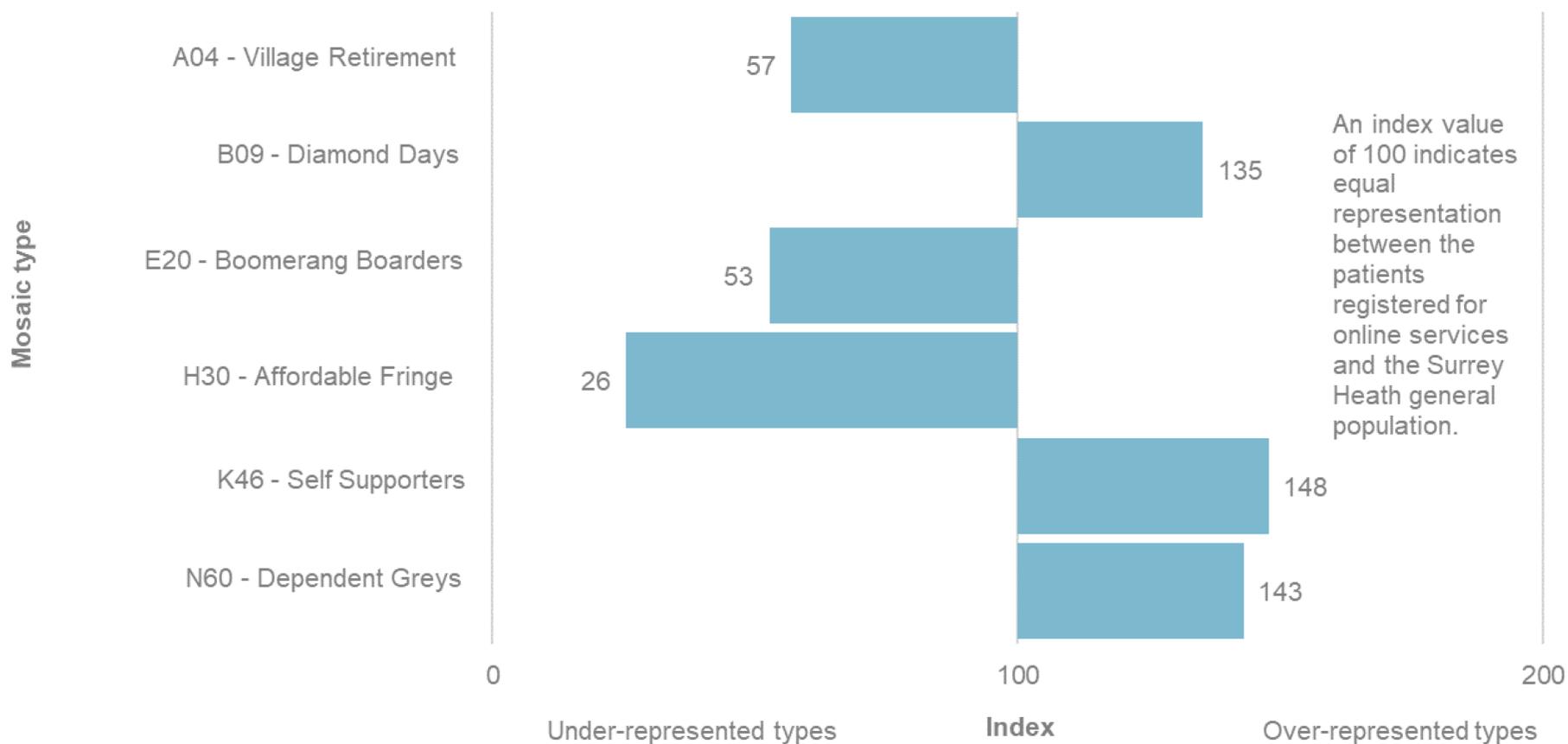
The most over-represented and under-represented Mosaic Types were used to identify linked postcodes to target patients to invite to focus groups, and were as follows:

A04 – Village Retirement – index 57 (under-represented) – 'Retirees enjoying pleasant village locations with amenities to service their social and practical needs'.

B09 – Diamond Days – index 135 (over- represented) – 'Retired residents in sizeable homes whose finances are secured by significant assets and generous pensions'.

E20 – Boomerang Boarders – index 53 – 'Long-term couples with mid-range incomes whose adult children have returned to the shelter of the family home'.

H30 – Affordable Fringe – index 26 – 'Settled families with children owning modest, 3-bed semis in areas of more affordable housing'.

K46 – Self Supporters – index 148 – 'Hard-working mature singles who own budget terraces manageable within their modest wage'.

N60 – Dependent Greys – index 143 – 'Ageing social renters with high levels of need in centrally located developments of small units'.

Further under-represented Types used to attempt to recruit participants for the low user focus groups were as follows:

N61 – Estate Veterans – index 75 – 'Longstanding elderly renters of social homes who have seen neighbours change to a mix of owners and renters'.

F25 – Classic Grandparents – index 77 – 'Lifelong couples in standard suburban homes enjoying retirement through grandchildren and gardening'.

E21 - Family Ties – index 78 – 'Active families with teenage and adult children whose prolonged support is eating up household resources'.

H35 - Primary Ambitions – index 80 – 'Forward-thinking younger families who sought affordable homes in good suburbs which they may now be out-growing'.

Village Retirement and Diamond Days are typically the 'Late Majority' in terms of adoption of technology. Classic Grandparents are typically the very latest adapters of technology (Laggards). Boomerang Boarders, Affordable Fringe, Self Supporters, Dependent Greys, Estate Veterans and Family Ties are typically the 'Early Majority' in terms of technology adoption.

6.3. Phase 2 (insight gathering) findings

6.3.1. Patients' views

Knowledge and awareness of online services

Many patients appear to be unaware of the availability of online services. Patients also report that 'online services' is not a clear term, and they do not fully understand what is meant by the term. Furthermore, many patients have registered for but have never actually used online services.

In contrast to clinicians, who feel that online services are well publicised, patients believe online services are not well promoted. Many patients are unaware of or do not engage with online services despite active promotion from practice staff, and further exploration of this mismatch is needed.

Examples given by patients regarding how online services are currently publicised were:

- waiting room notices
- conversations with receptionists
- new patient registration process
- message at reception desk
- web site (but poorly visible – requires patients to scroll and could easily be missed)
- waiting room screen

Patients made suggestions regarding how to publicise online services more effectively which were:

- better design of practice web sites such that patients can easily view the services that are available, and how to access them
- being given information by receptionists
- text messages (although some patients report not using mobile phones)
- added on to other letters – for example those about flu
- email (preferred by patients to text messages and would also be free for practices)
- information on prescriptions
- leaflets for GPs to hand out at the end of appointments
- improve visibility of patient access on the practice web site
- slowing the waiting room screen down at the surgery
- a national campaign was recommended but it was accepted that this would require consistency in the offer from different practices.

Patients raised several specific concerns in relation to the promotion of online services which were:

- the risk to practices of incurring unnecessary costs, for example posting letters to inform patients about online services
- the comment section on the bottom of prescriptions is not looked at and acted upon by some practices
- concerns about quality of the information on the internet if signposted
- concerns about loss of personal contact which is highly valued

One male patient commented during a focus group that it was very difficult to find the Patient Access link on their practice website:

"I don't know whether people find it awkward, I certainly did when I started using online; on ours you actually have to look right down on the… scroll up to get down to where it says Patient Access... I would have expected, in like most websites, that you just actually click on the first page without having to scroll. But it's as though patient access is right at the bottom which perhaps will persuade some people, it will stop some people… if they're not that familiar with the website."

Another patient bypasses their practice website in order to find the Patient Access link:

"When I access Patient Access what I do is just put it in Google and then it comes up, and you click on – so I don't actually go on the health centre's website."

Perceptions/experiences of services – general feedback

Some patients reported that the registration process is unnecessarily complicated, requiring GP surgery support. They agree that very simple instructions are required.

Once registered, however, online appointment management and e-prescriptions are universally accepted as good by focus group participants. In general, patients feel that it is highly convenient and quicker to manage prescriptions online or book a routine appointment:

"I find it very useful for repeat prescriptions and making appointments with the doctors especially when you end up trying to make an appointment and you're queueing… at 8 o'clock on a Monday morning trying to make an appointment."

There was an occasional contrasting view from patients:

"I find it much easier to call for an appointment and let the pharmacy look after my repeat medication."

The online system generally does not work well, however, for urgent/same day appointments or non-standard repeat prescriptions. Issues with system inflexibility were

described in all focus groups, with patients highlighting the limited scope of online services to deal with complex requests:

> "A lack of flexibility really. It works very well if you are in the system. If you're not, if you don't fit exactly into the system, it doesn't work at all."

There was a strong consensus that patients find it convenient to use online services outside of their practice's opening hours, and they make good use of this facility.

Although satisfaction was expressed by a small number of patients with the range of services available online at their practice, this was not the case for the majority who feel that this is very limited. Focus group patients felt that online service availability is restricted to appointment booking and online prescription management with limited access to medical record and they would like to see an expansion of available online services:

> "My access is limited mainly to booking appointments and ordering re-prescriptions and looking up who the team is and getting the phone numbers. That sort of basic stuff. In terms of actual practical stuff, it is a bit limited."

Accessing medical records online was seen by many participants to be "pointless" as the available information is so limited:

> "…if you look at your medical records, you might just as well not bother because there's nothing so it's not very helpful."

Non-responders to focus group invitations were followed up with a phone call, and, if they declined to attend a focus group, were invited to give verbal feedback over the phone. These patients in general expressed a lack of trust in the system and said that they "would prefer to talk to someone to be confident". In keeping with feedback from practice staff who felt that some patients – particularly within the older age groups – preferred direct contact communication with staff, the feeling that 'technology is taking over' was expressed by some older participants.

Perceptions/experiences of services – online appointment booking

In general, patients feel that it is highly convenient and quicker to book or cancel a routine appointment online. Complexity of different appointment types do not, however, appear to be handled well by the system, for example, urgent appointments and appointments which require a non-standard length of time. Participants specifically mentioned that they would like to be able to book urgent appointments online*.*

Sometimes appointments are available online which are not available over the phone:

> "I'm surprised how many appointments are available online. When you phone the receptionist, they tend to tell you there's nothing available."

In general, however, the availability of appointments which are bookable online appears to be limited both in number and choice (of date/time, and of GP). This could be a possible reason why many patients have registered for but never used online services. Participants also indicated that previously the availability of these appointments bookable online was good, but has now diminished: patients feel that this is a retrograde step. Patients reported that some practices have largely replaced appointments bookable online with a new telephone triage system: patients expressed dislike of the telephone system, particularly in the case of patients who work:

> "You know, you have to talk to the receptionist and wait for your doctor to phone you back in 2 or 3 hours' time… well why? You know, I can't understand that."

A small number of patients reported that a significant advantage of online booking is that the name of the doctor is visible, with one patient reporting that they only used the system to see which doctors were working on a specific day:

> "It is a huge advantage of the internet appointment system is that it throws up the names of the doctors so you can actually choose who you want to be able to see which I personally think is a tremendous advantage whereas when you ring you are just told."

Other participants reported that online booking does not work well if a patient wishes to guarantee seeing a particular doctor: there may be variation amongst practices relating to whether or not the name of the GP is displayed on the booking screen.

Patients would like the choice of appointments available online to be increased:

> "I think if the clinics that are available within the practice are on the website that would be very useful. In my surgery case there are none, other than general appointments. That would save an awful lot of time."

A recurring view was the desire to be able to book nurse appointments online, an issue which again was independently identified by practice staff. Practice staff feel that booking appointments for nurses is complicated and would be difficult to do online because nurses have different skills and patients need to know who is appropriate for which procedure. Receptionists would know which nurse was appropriate. However, there is an appreciation that patients are asking for this functionality and that some areas of nursing easier to move to online than others.

The view was expressed by patients that the availability of nurse appointments online would relieve some of the burden on GPs:

> "You cannot book a nurse's appointment. You can only book a doctor's appointment. I find that infuriating. It would save them an awful lot of time and bother if they had the nurses' slots and you can say 'well any nurse will do'..."

Some participants indicated that they would be more likely to attend important prevention-focused appointments if they were able to book nurse appointments online:

> "Certainly nurses appointments. In our practice that would be a great help… they tell me I have to have monthly BP checks… I don't go because it's such a faff."

Some patients reported that they just find it easier to phone to book an appointment:

> "We don't use the online system a great deal. Prescription repeats I use it for and we have occasionally used it for test results, haven't we? But we never try to book an appointment online. It always seems to be so much easier just to ring the receptionist and do it that way."

Perceptions/experiences of services – online prescription management

There was universal agreement that online prescription management is good, very convenient and saves time:

> "Certainly for prescriptions it works ideally for me because previously you had to go down to the surgery and drop in your prescription list with items ticked into a box and it's very difficult to park and you have to travel a few miles in other directions. So online repeat prescriptions is superb."

Prescription ordering works well for patients if a standard repeat or straightforward request is made. Patients report, however, that the system is more challenging to use when managing complex requests or multiple medications simultaneously:

> "…lack of flexibility really. It works very well if you are in the system. If you're not, if you don't fit exactly into the system, it doesn't work at all."

> "I'm taking 13 different medications at the moment so it gets very, very complicated… so there's a repeat prescription request going in at least once a fortnight because all the timing is out on all of them and they keep changing the timing, so you've got to watch them like a hawk… I do them in weekly cycles, you get to the end of the week and you find you've only got 3 left whereas you should have two and a half months, so the system doesn't work. It works some of the time but not all of the time."

Patients also described how they need to keep ordering regularly to keep items on the prescription list:

> "Once you are registered for repeat prescriptions it's very simple indeed, except if you don't order regularly then they fall off the bottom. And then you're in trouble."

Indeed, some patients reported re-ordering prescriptions when not yet needed to avoid the medication falling off their list, which risks over-ordering and wastage.

Communications with the practice relating to online prescription management can be problematic. There were reports of persistent problems with receiving the wrong

product, despite multiple communications to the practice via the online 'comments box' and an alert being on patients' electronic records.

Patients expressed frustration that the 'comments' box on prescriptions does not work as a means of communicating messages to the practice, and feel strongly that it would be helpful to have a facility to effectively communicate issues relating to the prescription to the practice:

> "The little comment box on the bottom of the form though? It doesn't always get back to the doctor. I think we actually have a note on ours that says, 'The doctor may not actually see this'."

> "I put a comment in the box you know please reinstate this for 3 months and I must have done it a dozen times and it's always been ignored and no one has ever responded."

For patients, the Electronic Prescription Service system linking prescription requests to pharmacies works well for some but not for others. One patient reported erroneous text information to say the prescription ordered was available to collect when in fact it wasn't. In other cases, it has worked well and efficiently, to the great appreciation of one patient:

> "I put in for a prescription late last night. And I went into Superdrug at midday and it was there. I couldn't believe it! That was brilliant."

Perceptions/experiences of services – access

Patients expressed significant frustration that access to appointments in general practice has deteriorated substantially over recent years, with some patients waiting several weeks for an appointment.

> "I can't see why we've gone from only having to wait a couple of days to having to wait 5 weeks and… it can't be possibly to do with funding as we're not talking a slight change, we're talking about a total… it's a different world."

One patient expressed that they would be prepared to attend for an appointment at midnight if necessary.

Patients, appeared, however, to be very mindful of the pressure on practices and GPs and wished to help if possible. There was a corresponding acknowledgement by patients that there are insufficient GPs. Concern was expressed that practice lists are very large with GPs not having enough time to care for a large number of patients.

Perceptions/experiences of services – communicating with the practice

Patients would value more communication with the practice, for example the ability to communicate directly with a doctor for simple things that do not require an appointment.

Participants feel that communicating electronically with the practice, or with their doctor directly, would be more convenient and quicker than phoning, but understand there are some challenges, including the risk that this service could be misused, and issues relating to data security:

> "I mentioned to my GP about sending him an email and at that point he said something along the lines of 'well, we can't do that, it's not secure'."

> "I was asked to ring into the doctor with some self-tests and I said ringing in is difficult – getting through – and I asked can I email them? 'Oh no, we don't do email'. I think that could be opened up somewhat. I appreciate there are some concerns there that they could be inundated with rubbish."

Patients reported that if they currently need to communicate urgently with the practice, this can only generally be done by telephone or in person. Some patients reported writing letters directly to the doctor:

> "I do actually write letters to the doctor. Because I find that's the only way really… whether the letters ever reach my doctor I don't know, but I do actually, not very often, put letters physically through the postal portal of the surgery."

One patient reported:

> "Anything to ease the speed of communication with the practice would be welcome".

Perceptions/experiences of services – out of hours access to services

Patients like and make good use of the online appointment booking system outside of normal practice hours as well as during core hours. They also gave positive feedback towards the 111 out of hours service.

Finding a pharmacist late in the evening was raised a potential issue for patients by one GP, but patients did not raise this issue in our focus groups.

The ability to book a GP callback online and appointments at minor injuries units were highlighted as services that patients would particularly like to be available out of hours.

Perceptions/experiences of services – variation between practices

Patients are not happy with the perceived variation between practices in the online services offer, for example, variation in the scope of available services and the availability of appointments which are bookable online. This appears to be causing dissatisfaction to patients who are already struggling with access. Patients feel services should be standardised and expressed a high degree of frustration about this.

> "When I log in you can go into, like, blood pressure checks, diabetes checks, at least 10 options for appointments."

> Everyone laughs. "We'll all come to your practice!"

Barriers to use of online services – technical issues

Patients find that the system is acceptable, but one patient reported the system can be temperamental with a page becoming "stuck". One patient also reported that appointments visible online sometimes cannot be booked online, but can be booked by phone.

Some patients found the registration process for online services very complex, whilst others said it was very simple. All needed to have contact with the practice in order to register.

Barriers to use of online services – lack of availability/limited scope of online services

Patients reported that they use what they need and, as the availability of appointments bookable online has dwindled, many have found that there is now no point using online services. Patients from one practice expressed frustration at the practice's removal of online booking in favour of telephone triage.

Barriers to use of online services – preference towards personal contact

In general, participants appeared to want and value personal contact, particularly the elderly and those with mental health conditions. Participants expressed a preference to communicate with a doctor for medical advice face-to-face, and were concerned about the potential loss of personal contact, which is highly valued, if there is a shift towards replacing face-to-face contact with online interactions:

> "I hope it doesn't mean that the GP, instead of talking to you, will say 'look it up on the internet'."

Concerns were expressed by patients that if they were not being seen face to face, medical care might be outsourced overseas with virtual consultations taking place to make them cheaper.

There was a strong feeling from patients that electronic communication/ signposting should not replace face-to-face time which is 'irreplaceable'.

Specifically, with reference to the use of Skype consultations, there was a strong feeling that although Skype is preferable to a phone call, face-to-face contact is preferable. Concerns were expressed by patients about the quality of transmission during a Skype consultation, with the risk that important clinical information may be missed if picture quality is poor. Participants also felt that there are certain situations in which non-verbal cues are important and you need to talk to a doctor face-to-face. Discussing mental health problems was given as an example here.

Barriers to use of online services – concerns about quality of online support/advice

Patients are generally keen to undertake self-management, and expressed feelings that being signposting online would be acceptable, but there are some concerns about the quality of the information that they are signposted to, and that the advice won't be personal for the individual.

> "It would have to be something like an NHS site. What I mean is something you could just click on from the online services that you've already got."

> "I wouldn't be happy with use of the internet to find and access other services… I think it should be connected up with the GP surgery rather than going off into the ether of other things."

> "I would be a bit concerned that it would be a broad brush stroke approach: 'Don't eat too much fatty meat/ Don't eat too many eggs". It needs to be more tailor-made to the individual."

Continuity of care

For the majority of patients in our focus groups, continuity of care is very important to them for planned, non-urgent appointments and for sensitive matters. Patients, especially those with chronic issues and complex medical histories, understand the benefits in terms of improved efficiency and quality of care which can be achieved with good continuity of care. Participants did express concerns that online appointment booking and electronic consultations would compromise quality and continuity of care.

The general view is that continuity of care has diminished significantly in general practice over recent years:

> "Over 40 years we've seen the way the practice works change in a way we wouldn't have dreamed of. And seeing the same doctor which was always such a valuable part of general practice is now a virtual impossibility…"

> "I'm over 75. My allocated GP has left so I made an appointment with the substitute. My medical history is complicated, and when 10 minutes were up, she said I'd had my time and… that was it. I hadn't even got half way through. So, I'm now looking for one of the other partners to be my GP. And I can't get an appointment with another GP for at least a month..."

Participants highlighted the vital importance for continuity with doctors for certain patients, for example those with mental health conditions and complex medical needs.

Patients had less concern about seeing their "usual doctor" in urgent situations:

> "If you've got a problem, you want it sorted."

6.3.2 GP views

Perceptions of online services – online appointment management

There was general support from GPs for online appointment booking, with agreement that the service has potentially helped reception staff. The consensus amongst participants was, however, that it had not made a significant difference to GPs themselves, and a number of concerns about the service were highlighted.

At the time of conducting this work, it was only possible to book GP appointments online. GPs and practice staff appear to have strong concerns about the risk of inappropriate booking of nurse appointments (for example, booking the wrong nurse or wrong time slot), with one practice having to withdraw the booking of nurse appointments online for this reason. Practice staff highlighted that booking appointments for nurses is complicated and challenging to manage online. One GP agreed with this view:

> "We do all of our nurse appointments via telephone for that specific reason that people were booking into completely the wrong slot with the wrong nurse and it was a total waste of time for everybody."

Availability of other types of appointment, such as phlebotomy, have been trialled but withdrawn due to perceived inappropriate use:

> "Patients were just booking phlebotomy appointments without having discussed with a clinician first because they fancied getting a blood count or a thyroid function and so we had to withdraw those appointments from online."

GPs expressed the view that take-up of online services has been low because the scope of available services is so limited. There was an appreciation that patients are asking for the scope to be widened, and acknowledge that it would be useful and possible to create online bookable slots for some types of appointments other than those with a GP, for example, contraception and minor operation clinics, and nurse/health care assistant appointments. This would, however, need clear navigation for the patient at the time of booking to avoid inappropriate bookings being made. GPs report that direct online booking removes the ability to triage and, therefore, allows patients to book into an inappropriate appointment slot which then causes frustration and a wasted appointment. GPs highlighted that online booking removes the ability for practice staff (who have the skills to assign patients to the appropriate appointment or professional) to triage and signpost patients. This might lead to the booking of an inappropriate appointment slot with subsequent wastage of appointments. Patients booking into the wrong slot causes frustration and inefficiency.

> "They are also booking into the wrong appointment slot so booking something that isn't appropriate with the wrong doctor, managing to book themselves into something that isn't right, and then the frustration that comes back to them and to us when it is an appointment wasted and they've made an unnecessary trip."

This situation may also lead to delays in patients receiving appropriate care and advice:

> "I think the administration bits, booking, cancelling, requesting prescriptions etc. is great and we all like that but I agree it is the clinical bit that starts that makes us all a bit nervous."

Whilst patients reported that the availability of appointments which were bookable online were often very limited, GPs reported that online slots are often not filled and risk being wasted:

> "We have a number of online bookable slots and we find that they don't tend to get booked even though they are released in advance in quite a decent time frame and the majority of our people signed up to online access are the young generation who would use them potentially."

GPs also reported that online appointments booked in advance have higher a DNA rate:

> "what we do find is that the online booking appointments booked weeks in advance have a higher DNA rate than patients booking closer to the time but that is true of any advance booking appointment."

GPs felt strongly that wasted appointments need to be eliminated but accepted that, due to difficulties finding the correct appointment, patients may not realise when they are use services inappropriately. One slightly tongue-in-cheek suggestion was to encourage patients to watch an educational video with a quiz at the end.

Perceptions of online services – electronic prescription management

Although the general view amongst participants was that online prescription management was helpful for the practice, GPs were unsure regarding any benefit to themselves:

> "I think online prescription requests have helped reception enormously. I think being able to book appointments online has potentially helped reception staff. How it's impacted on me as a clinician personally at the moment I'm not sure it's made a huge amount of difference."

> "I think if its impacted on the burden of work, it's only helped because the online prescriptions is so much easier with them coming that way than coming by paper copy."

Rather than reducing the workload for GPs, the use of the Electronic Prescription Service appears to have created an additional layer of complexity to the issuing of prescriptions:

> "There are 3 lots of prescriptions that need signing so there are 3 different places that you need to log into and do things."

One particular issue raised by 2 GPs was the physical smart card required for EPS access, meaning that work cannot be done at home or in other locations within the surgery. GPs must carry the card with them in order to log in to the system, which they find impractical:

> "Those smart cards massively disadvantage as we have a physically quite large practice and if I'm down in the doctor's office where quite often I would then log onto the system just to check something reception have asked me to look at, I can't do that now. I don't pull my smart card out every time I leave my room as I leave the room multiple times a day, so it's kind of stopping that flow…it's tied me to my room more."

Some participants also reported a high number of queries to the dispensary in their practice.

Managing demand

GPs expressed a need to protect the NHS from what they perceive to be a move towards a "consumerist" model of service provision. Both practice staff and GPs felt that patients' expectations are unrealistic and too high, with the example given that no one would expect to have access to a high street bank 8am to 8pm, 7 days a week. Patients' motivation to accessing services appears to be poorly understood by practices, but GPs appear to perceive that patients are careless in their use of services:

> "Understanding when patients want services and when they hit the button to call is a bit of a mystery…I think some patients wait for out of hours despite whatever you offer

during the day, people want what they want when they want it, I think, sometimes as well."

The paternalistic view that if patients will not take responsibility to "protect the NHS", then clinicians need to do so:

"I think we need to be careful when thinking about online services. We're not EasyJet, we're not trying to sell flights. We're trying to protect the NHS a little bit from the patients and if they are not going to take responsibility to protect the NHS and help us then we have to do it."

An important message for patients raised by one GP was the need for patients need to take responsibility for their use of services:

"A really important message that needs to get across to patients is that to keep our services free at point of access they have to be reasonable in their use of them."

The concept of considering payments by patients for the use of GP services was touched upon briefly by participants.

Risks and benefits of online services – workload

The risk of an increased workload was a particular concern for GPs. Electronic communication with patients, for example, instant messaging and email, was an area which GPs felt could lead to a substantial increase workload and decrease in patient self-care. There is conflict between patients wanting to be able to communicate electronically with health care professionals, and the capacity for the practice to deal with these communications in a safe and timely way, particularly in situations where the issue may be one which requires urgent attention. One GP expressed the following view:

"The ability to communicate electronically with practices is valid, however that needs some kind of level of restriction. We can't just have unfettered emails that patients expect a response to, and there is a safety issue with that as well that patients actually need to speak to somebody and they've sent an email and it gets missed, so that needs managing."

Online appointment management was felt by some to be helpful in reducing the burden on reception staff:

"I think the appointment booking is cutting down on phone calls for the reception team…as I say patients are going to want appointments anyway. I don't think it's increased any problems."

GPs reported that targets for online services may cause increased workload for practices and increase anxiety for patients, for example, in the case of patient access to full medical records and for test results, which may lead to enquiries about slightly

abnormal results of no clinical significance. They were also conscious that the more people who request access, the greater the administrative burden.

GPs explained that new technology and online services have resulted in multiple points of access/communication into general practice. Work comes in from many different sources now, and at many different times of the day, including outside of core hours – all must be checked in a timely way. This can make it hard to prioritise and manage tasks. An example was given of a GP who picked up scans that showed serious pathology at 8pm on a Friday night.

Risks and benefits of online services – electronic communication/consultations

The ability for patients to email the practice was felt by some participants to be justifiable, but this would need to be tightly controlled, with a failsafe system in place to triage and pick up on red flags.

Participants expressed concerns regarding their capacity to deal with electronic queries in a timely and appropriate way such that nothing is missed. GPs were also concerned about data protection issues relating to the use of direct electronic communication with patients, and also identified that the ability to communicate electronically with patient relies on up-to-date contact information – if contact information is out of date there is a risk to clinical and data safety.

There was some support for the use of e-consultations which some participants felt could be useful to shift workload between platforms. GPs were hopeful that the e-consultation system will be useful for active signposting and more effective triaging of patients but were also concerned about increased access and immediacy. An example was shared of a practice using a telephone version of e-consult: effective triaging has resulted but increased demand has been seen.

Concerns were expressed about the growing challenge relating to patients accessing advice from independent online GP consultation services. These were felt to be providing potentially inaccurate diagnoses, generating profit, and ultimately generating more work for the practice when patients come to 'double check' the diagnosis.

Risks and benefits of online services – access to medical records

GPs acknowledged that sharing records with other professionals can be extremely helpful in facilitating information sharing with other clinicians involved in patient care, for example in an Emergency Department setting when patients may not know their medical history.

Full access to medical records by patients was, however, a key concern repeatedly raised by GPs during the focus group. GPs felt that this may cause increased anxiety

for patients and may lead to defensive documentation with subsequent loss of important clinical detail, for example, in the context of notes to other healthcare professionals and suicidal risk. They also felt it would lead to increased time for documentation to ensure lay terms are used, require old consultation notes to be reviewed and may require GPs to keep notes in other places. GPs also highlighted a possible increase in workload, for example, the need to communicate with other professionals in alternative ways to avoid writing things in the patient's notes and answering queries from patients about entries in their notes or slightly abnormal results of no clinical significance:

> "But it does worry me about people seeing too much of their own medical record. I worry it raises more questions than answers for them."

> "More and more calls: 'what does that mean, why have you written that, what does this mean?'. I think you have to remember the notes are written for us as GPs. They are our notes. Therefore, we should be able to write in our notes what we need to write to remember how to look after the patient. I think if we expose our notes too much to people we run the risk of having to keep notes somewhere else so that all those little bits of information that are nuanced and very private for a GP in the management of the patient would be lost or we'll have to keep them somewhere else which is just ridiculous."

Concern was expressed that patients might use access to their medical notes inappropriately, and there was also a specific equity concern:

> "The people who are going to make use of this are the worried well and entitled demanders, they are not going to be the ones who really need it."

One GP warned:

> "We need to be empowering people to look after themselves and to decrease the workload, not find new ways of creating more workload, so I think we have got to be very careful we don't just advertise to patients that you can have questions answered any time of day or night about anything and we need to push back a little bit and I think that needs to be a national thing."

Risks and benefits of online services – continuity of care

Loss of continuity of care was a concern which was expressed throughout patient, staff and GP focus groups. Interestingly, GPs in our focus group did not appear to appreciate that patients also highly value continuity. GPs highlighted the important role continuity plays in efficiency and quality of care:

> "When you take continuity out you increase appointment length as starting at the beginning with everybody takes a lot longer and the only reason you deliver things in 10 minutes at some semblance of speed is because you know the patients very well…"

GPs expressed concerns that greater access can compromise continuity of care as locums are used to meet capacity requirements, thereby decreasing efficiency.

> "The more you open up access the less continuity because you've got to spread that workload across the people who are there and patients want more…"

The challenge of maintaining continuity of care with online bookings was raised: concerns were expressed that patients book the first available appointment and continuity is lost.

> "One of our limitations is we still run a list based practice and very strongly encourage patients in seeing their own doctors and when they book online that completely goes to pot because they book the first available appointment and they don't get an opportunity to be told you saw Dr X last time is it a follow up would you like to see the same person? They don't understand the point of continuity, seeing the same doctor."

Access – what is 'good access'?

Both practice staff and GPs felt that access for patients is already acceptable/good. GPs report that the feeling regarding access from patient satisfaction surveys is also good. Some hopelessness was expressed by participants: GPs want to achieve good access but feel it is unachievable within current resources/capacity.

GPs felt that, for access to be 'good', there should be:

> "…a range of appointment times – so you've got access before work, after work, as well as normal in-hours."

And

> "You should have access to on-the-day for medical needs, as well as to routine availability if you don't need to be seen that day."

And that general practice should be:

> "…accessible in a way that the patients can manage, so in modern times this should be online in some form or by telephone for those who don't like online methods or even by walking into the surgery. All these things should be achievable."

There was clear recognition, however, that increasing demand must be efficiently managed. This is evident in this GP view of what good access looks like:

> "To see the maximum amount of patients as quickly and efficiently as possible in whatever form that takes."

GPs expressed the view that making access too easy may escalate demand and dissuade people from self-care. The issue of payment for general practice was touched upon:

> "I don't think we should ever get to the stage where patients are having appointments at their total convenience."

> "With Amazon you have to pay, don't you, regularly to have that service, so maybe if people want something that's so immediate, they ought to pay a bit towards it."

GPs perceived that patients want everything instantly, whereas clinicians appreciate 'time as a diagnostic tool' which the immediacy of new communication models may erode. There was a strong feeling that patients should not be able to have appointments at their total convenience, with the view expressed that adding a layer of restriction to access encourages patients to reflect on whether they really need the appointment:

> "Actually, I'm not saying we should get rid of online services at all but if you have to wait online for 5 minutes it does make you question 'do I really need to speak to somebody about this? do I really need an appointment?' whereas it is very easy just to send an email, book on line without having to question that you're actually doing it for the right reasons other than waking at 3 in the morning and thinking I would quite like to see a doctor tomorrow."

GPs reported that patients had been known to "play the system" to secure access by booking multiple appointments. Some practices have consequently "set the system" such that there is a limit to the number of appointments that a patient can have at any one time.

Access – demand management solutions

Concerns regarding demand were raised repeatedly. A particular priority was the empowerment of patients to self-care and the importance of ensuring that general practice does not advertise that patients' queries can be answered at any time.

Upskilling the wider workforce was seen as a potential solution to capacity issues:

> "…(appointments) might be with other healthcare professionals, that is pharmacists, nurse practitioners, triage nurses who are upskilled, paramedics, etc."

Extended access has been implemented across Surrey Heath for a number of years but uptake of appointments has been limited. One practice with a branch surgery has recently changed from opening until 8pm on both sites to opening only one branch until 8pm due to lack of sufficient uptake of appointments. GPs report that many patients are still not aware of extended hours availability:

> "In our feedback we often get 'well, we wish the practice was open more'. We open under every enhanced service known so there's no time we're not open, virtually, apart from Sundays and Saturday afternoons. So, I think it's patients either just don't have an idea or they want even more, more, more all the time."

GPs acknowledged that extended access has been helpful in avoiding some admissions, for example, providing the opportunity to call sick patients back in the evening to review them and in the case of children:

> "One of the real benefits of the 6.30 to 8 provision has been that we see kids who have been picked up from school who would normally have presented at paediatrics out of hours."

Equity of access was a concern for many GPs. Sharing the view of Practice Managers, GPs asserted that extended hours appointments should be restricted and reserved for "appropriate" patients such as commuters who would struggle to access appointments within core hours, but this is not currently happening. GPs reported that patients who use extended access appointments are not those who "really need them".

The view was also expressed by participants that extended coverage in terms of hours covered by the same number of people will not increase appointment capacity overall – the workforce is insufficient to meet the demand for extra capacity. There was deep concern relating to this:

> "Who will cover extended access? Good doctors will want to leave."

GPs feel that extended access is also potentially detrimental to continuity of care as to meet capacity requirements. Practices will have to rely more on locums and concern that general practice could become a "shift based system":

> "The one thing I would say is the more you open up access the less continuity I think there is a risk of because you've got to spread that workload across the people who are there and patients want more but they want more of the same and they can't have it."

Access – promotion of online services

Whilst patients reported that online services are not well promoted, GPs feel that they are promoted well on, for example, practice websites, digital screens in waiting rooms, patient participation groups, posters in practices, and via text messages in some cases. GPs were, therefore, confused as to why use of online services by patients is poor:

> "It's all advertised and patients know about it."

GPs suggested that uptake might be improved by:

- blanket text messages
- information about information on practice website

- newsletters
- communication via pharmacies
- national advertising campaigns

Barriers to the use of online services – technical issues

Issues with system inflexibility were described in all focus groups.
The EMIS login process was mentioned as a potential barrier. GPs reported that many patients sign up for online services and then forget their login details if they are not using the service regularly, which leads to lack of use of online services and increased workload for the practice:

> "A lot of patients might sign up for electronic prescriptions but if they're not having things regularly then they forget their logins or the same with online bookings. We have a lot of traffic generated where they sign-up for it and then they forget if they are not using it on a regular basis."

Barriers to the use of online services – lack of navigation of patients

GPs agreed that no signposting occurs with online booking. One GP pointed out that this functionality is available, but comes as a package with other features the practice does not want:

> "if there was some kind of front desk online platform prior to being able to book an appointment that did the active signposting then, which it looks like there are systems designed to do, if that could potentially work effectively to improve that…but the problem is all the other stuff that comes with those packages could then mean the floodgates were opened…so it is about being able to pick and choose from those software packages what would suit us to start off with and it doesn't really give us that choice."

It was also felt by one GP that the messaging function on the booking system may not be effective:

> "I've not seen it personally but our IT lead has put a notification that says 'please do not book contraceptive services online – if you want a coil or implant please contact the surgery to book this appointment' but the number that still get booked shows how many people don't actually read the notification that they are being given anyway."

6.3.3. Practice staff views

Perceptions of online services

Practice staff reported that online services are becoming more popular and are liked by younger patients and working patients who find the services convenient and would to see more online services available:

> "People who are working think it's fantastic because they can speak to a GP you know online, do things online when they are at work."

Practice staff felt that online services are disliked by people over 60/the elderly and that these patients:

> "…like the voice, the touch, the communication with the receptionists."

The feeling that "technology is taking over" was also identified in patient focus groups.

With reference to patient reports of large variations between practices in what can be booked online, practice staff reported that practice managers have discretion in what is offered, subject to obligations.

Perceptions of online services – online appointment management

Practice staff reported that online appointment booking has probably cut down the number of calls to the practice, thereby reducing the burden on reception staff.

Practice staff agreed that online appointment booking may not be appropriate for same day appointments as triage is needed. One practice has changed to same day access via telephone triage to meet demand. This has had a negative impact on the need for and availability of online booking. As the availability of appointments bookable online has dwindled, many patients have fed back to staff that there is now no point using any online services. Patients in our focus groups reported, as described in the 'patient views' section, finding this telephone triage system frustrating.

Staff reflected on the fact that it is not currently possible for patients to book appointment*s* online which might not need triaging, for example, phlebotomy appointments, routine diabetes check-ups, contraception reviews. This type of access would be challenging to control, however, and staff expressed concerns regarding the potential risk of, for example, inappropriate blood tests requests and patients potentially booking advanced appointments for when a sick note is running out.

Appointments bookable online are currently only available for doctors. Practice staff, as for GPs, have strong concerns about the risk of inappropriate booking of nurse appointments, with one practice withdrawing the previously available facility to book nurse appointments online for this very reason. Practice staff highlighted that booking appointments for nurses is complicated and difficult to do online, although they appreciate that patients are asking for this. Staff did acknowledge that there is scope for more clinics and different practitioners to have appointments bookable online going forward, but felt that communication and patient education will be crucial for this facility to work.

There were mixed views regarding the effect of online appointment booking on DNA rates. Practice staff in one practice reported that it is rare for a patient to DNA an appointment that is booked online. Reasons thought to explain this are ownership and choice when booking ahead, and the ability to view/check appointments and change them if necessary. Some staff members felt that these factors would make it more likely that patients would attend their appointments. This contrasts with the views of GPs, who reported that advanced appointments booked online risk more DNAs, as is the case with all advance appointments.

Perceptions of online services – online prescription management

There was universal agreement amongst practice staff that the online prescription system is robust and has reduced the burden of work overall for practices.

Additionally, it was felt that online prescriptions management leads to useful audit trails for medication ordering.

Perceptions of online services – electronic communication/consultations

Overall, staff felt uneasy about the safety of video/internet consultations. Practice staff highlighted the potential for poor video quality, and a practice nurse expressed concerns about not being able to use senses of smell and touch when assessing a wound. This could lead to a lack of adequacy of clinical assessment, which could impact adversely on the management of patients.

There were some positive views about receiving email communications from patients:

> "If the patient can email me their weekly blood pressure recordings rather than coming in and presenting me with a piece of paper that's often a lot more convenient for them and works for me too."

One practice manager voiced concerns that a medically urgent issue sent by email could be missed if a robust system were not in place to monitor emails regularly and frequently.

Promotion of online services

It was acknowledged by staff that many patients are not aware of or do not engage with online services, and further promotion is needed.

Practice staff reported that publicising of online services is currently happening, but the extent is variable between practices. Examples given by staff regarding how online services are currently publicised included:

- notices in reception

- practice website
- promotional week with online services afternoon
- television screens in reception
- advertised on prescriptions
- verbal encouragement from pharmacy staff when ordering prescriptions
- new patient leaflets

Practice staff acknowledged that they find it difficult to proactively promote online services:

> "On reception we are reactive as opposed to pro-active. We don't pro-actively sell the online services due to time limitations."

It was also highlighted that staff deliberately do not actively promote access to medical records due to concerns regarding causing anxiety, offence or misinterpretation. It was felt that certain items are captured in the medical notes as an "aide memoire" for the healthcare professional: these may not be appropriate for patients to see. If access is requested by patients, only limited access is generally granted.

Additionally, staff members themselves do not appear to be embracing this technology or using online services so it is more difficult for them to be ambassadors:

> "We don't look at ourselves as patients. We've got staff members that moan and moan about how long they have to wait on the phone to the GP receptionist (and some of them are in this room), and I'm like 'why don't you use online services?' 'I don't know. Just never really thought of it'."

Practice staff provided many suggestions for further online services publicity opportunities:

- providing clarity around what online services are
- messages on the telephone when patients phone in to book an appointment
- providing registration form with new patient letters
- leaflets
- text messages
- practice television
- information on paper prescriptions
- posters
- national TV or radio campaign
- practice newsletter
- self check-in screen for patients

The use of social media was specifically not recommended, since practice staff experience was of negative feedback about practices being issued on social media platforms.

Managing demand

Practice staff felt that 24/7 availability would still not be sufficient for the rising levels of demand from patients, and that patient expectations are unrealistic:

> "I think their expectations are just too high…I think with the best will in the world, until that changes, we are just fighting a losing battle."

Educating patients around sensible use of health services was highlighted by practice staff to be vital in managing demand, setting realistic public expectations and in ensuring that patients book with the right clinicians for the right ailment.

Practice staff expressed the need to empower patients and promote self-management, with signposting/navigation and patient education being perceived as extremely helpful to prioritise patients and navigate patients away from doctors where appropriate.

> "We're looking at online and we've been trying navigation here as well, pharmacists, midwives health visitors – access to all of those services before they actually reach the doctor"

> "In the 18 years I've been in the NHS I don't think there is a single system, whether it be online, whether it be access on the day, that will work 100%, you've just got to look for something that will be the best. And as I say, that navigation and signposting would be a great tool."

Educating school children with public health messages in schools was raised as a suggestion to try to manage the expectations of the future adult population.

One practice manager reported that some online services or appointment availability could potentially be shared with other practices but pooling capacity in this way if often is not possible because practice IT systems are "set up differently":

> "If we're trying to find an appointment for a patient and we are fully booked, looking at trying to book an appointment from the sister service, we find it difficult to look and I can imagine they have the same with us."

> "All the surgeries in the area have different appointment systems. At the moment we are putting into place the 7 day working that will be starting in September. We are going to be using a shared EMIS and then maybe the need for an online booking system for Saturdays and Sundays but it can't be used Monday to Friday as everybody's got different appointment systems."

Access

Practice staff felt that, in general, access for patients is acceptable. Anger was expressed relating to the imperative to increase access:

> "It really infuriates me when the Government say the doctors should be open till later, when in fact we've got services up and running out of hours and it's worked perfectly well for the last 70 years."

Practice staff supported the concern expressed by GPs that increasing access will lead to increased demand and the need for triage.

Access – extended access

There was disagreement between different staff members about the need for extended access and which patients who should have access to these appointments. Staff felt that, for access to be good, there should be a range of times (core and extended hours) available, together with availability for routine appointments as well as more urgent appointments:

> "I think proper extended access is needed to get everybody in where they need to be."

> "People who are working 9 to 5 should be able to see their doctor or other clinician between 5 and 8, weekends maybe, Saturday and Sunday. There are a lot of people who do actually struggle if they're stuck in an 8 to 6 job plus a commute and get home at 7… so that can lead to complications where they cannot see a clinician for a long, long time."

There was, however, much reflection on the fact that there is currently not the capacity to deliver this in reality. One practice manager explained that the general practice workforce is overwhelmed by current demands with insufficient capacity to meet extended hours commitments:

> "Whilst I don't like the idea from the fact of running the surgery and the fact there aren't enough GPs around to run a 7-day service at the moment, I think that provision 'til 8 o'clock in the evening is a good service to be able to offer patients, especially to see nurses for chronic disease management."

Arguments were made for and against general practice becoming more flexible in terms of extended availability of services.

Arguments for were:

- changing society and the need to accommodate working population during evenings and at weekends
- enabling patients to access more preventative services

Arguments against were:

- the view that general practice already has good access
- concern about increasing the burden on an already stretched workforce
- the current availability of other relevant out of hours services, for example pharmacy

Extended access has facilitated the availability of lunchtime and extended hours appointments locally, which are being used across the demographic profile. Concerns were expressed around whether extended hours appointments are being used by the people who really need them, and some staff members felt that extended access should be reserved for certain groups of people:

> "If you get the extended hours used by the appropriate people, that cannot really truthfully not make it in the core hours, that's different. But it's a free for all. It's that open gateway for whoever wants to come can come, whatever hours we are open, you can come."

Opening hours of 8am to 8pm appear to be a good compromise between full 7 day access (which staff generally feel is not realistic given current workforce constraints) and allowing busy working people the opportunity to attend in the evening after work. Other suggestions included using extended hours appointments for chronic disease management, or preventative care by nurses.

Mixed views were expressed regarding the impact of extended access on practice workload. Staff from one practice reported that extended access has not led to a reduction in intensity of work – the practice still has no spare appointments and 15 to 20 overflow patients every day. Concerns were raised that core work will extend indefinitely by extending access further, and that longer hours will increase stress for doctors and other staff with the need to also employ extra staff. It was also felt that other services are available and could be utilised out of hours rather than extending GP practice hours further.

Access – equity of access

Equity of access in relation to the use of online services was a concern for many staff members. Practice staff felt that online access would be more difficult for certain groups and described the difference in attitude to new technologies from younger and older populations.

Groups identified by practice staff as potentially less able to access online access are the elderly, patients without a computer and patients with special needs, although one practice manager highlighted that the over 70s are currently the highest users of online services in their practice. Staff expressed concerns that certain patients would simply not understand the complicated EMIS instruction letter and, therefore, would not be able to register to use online services, let alone start using them. Staff reflected that

> "I think there will always be a need for a telephone access for some demographics who may not be able to access online services and face-to-face access."

In the context of promoting equity of access amongst different groups, the need for simplicity of the system was seen as crucial:

> "I think it needs to be simple enough for patients to use but also it needs to provide confidential safeguards so that nobody else can access the information. I do think simplicity is important."

Barriers to implementation/uptake of online services – demand

There is an appreciation by practice staff of the benefit of online services for routine activities. However, the workforce feel overwhelmed with current demand with no capacity for implementing change, even though the change may ultimately relieve some of the capacity issues:

> "We don't pro-actively sell the online services due to time limitations."

It was suggested that any attempts to increase access are quickly filled by increased demand. Practice staff reported that previous high access to online booking, which was very popular with patients, has been reduced to just advanced bookings and for phone appointments at one practice. One surgery, which used to offer online booking of face-to-face appointments, has recently had to move to a telephone triage system due to overwhelming demand. Patients can ring and be triaged same day, so the ability to book appointments online has become redundant. This has not been popular with patients, who see it as a backward step:

> "The feedback I've had from a lot of patients, because we took away online face to face booking availability… I've had a lot of feedback saying that they used to use it, some used to use it regularly, and that's gone. So, they're not happy, they feel it's a step backwards."

Barriers to implementation/uptake of online services – registration process

Some patients reported that the registration process is unnecessarily complicated, requiring GP surgery support. They agree that very simple instructions are required.

A practice manager also described difficulties with the EMIS registration letter and is considering writing an in-house user-friendly guide to go along with the EMIS letter. The practice would like to work with EMIS to develop a more user-friendly letter:

> "It's not very easy for people that have low literacy skills, English is not the first language, there's not much diversity and equality built into that letter; it's very much hitting a certain target demographic."

The EMIS registration has also recently changed to require the user to enter an email address:

> "Now EMIS have decided that you have to put your email address in for it to be identified. Well that was never on there so people don't know what email address they use and it might have changed since and that's causing problems as well. EMIS have a lot to answer for."

Re-registering a patient after they have locked themselves out or lost their password is very complicated. This often requires the patient coming back to the surgery to start again with a new printout.

> "If we could work with EMIS and find a simpler way for the patients and a simpler way for the team to be able to re-register somebody if they've locked themselves out or they've forgotten their password."

The practice staff also explained that patients do not realise it is EMIS' system and not the practice's system:

> "I think that's the problem: patients think it's our system and it's not – it's EMIS's. It's EMIS's webpage that the patient has to go to; when it's down, it's EMIS that's down and not us. When it's blocking them out, it's EMIS, it's not us. They ring expecting us to sort it: 'Oh you've got a stupid system', and it's completely out of our control."

> "I think one of the problems as well is the letter that is produced to give to patients… it's not particularly user friendly, it's done by EMIS and we can't change that, but I wonder if we could work with EMIS to try and make a more user friendly one. It's not very easy for people that have low literacy skills, English is not the first language, there's not much diversity and equality built into that letter… it's very much hitting a certain target demographic and I just think we should be advertising things in all forms of communication"

> "I would also say from the staff here when there is a problem with somebody logging in, the system used to be very quick and easy to re-register them and do something. Now it takes them about 5 more steps to do than what they had to do, 2 steps before and now it takes them 5 steps. So, from the reception team so yes if we could work with EMIS and find a simpler way for the patients and a simpler way for the team to be able to re-register somebody if they've locked themselves out or they've forgotten their password."

Barriers to implementation/uptake of online services – technical issues with IT systems

Issues with system inflexibility were described in all focus groups.

Practice staff explained that the current system is not able to direct patients effectively and allow for differing appointment lengths. GPs agreed that no signposting was available with online booking and felt that a front desk online platform prior to booking is needed. One GP pointed out that this functionality is available, but comes as a package with other features the practice does not want:

> "If there was some kind of front desk online platform prior to being able to book an appointment that did the active signposting then, which it looks like there are systems designed to do, if that could potentially work effectively to improve that… but the problem is all the other stuff that comes with those packages could then mean our other concerns like if the floodgates were opened… so it is about being able to pick and choose from those software packages what would suit us to start off with and it doesn't really give us that choice."

Practice staff also highlighted the importance of a reliable and robust system:

> "…that doesn't crash every 5 minutes because as soon as that happens then you start a backlog that then crescendos".

Patients find that the system is acceptable, but one patient reported the system can be temperamental with a page becoming "stuck". One patient also reported that appointments visible online sometimes cannot be booked online, but can be booked by phone.

Barriers to implementation/uptake of online services – complexity of the system

The NHS system is complex to navigate and practices have found it difficult to enable patients to do this without a direct interaction.

Practice staff felt that the system needs to be:

> "…simple enough for patients to use but also it needs to provide confidential safeguards so that nobody else can access the information."

Risks and benefits of online services – access to medical records

Practice staff were supportive of patients being able to see their test results online. They suggested that links to further information about the test could be made available, and that this would be useful to reduce practice workload. However, there were concerns that giving patients full access to their medical records risks causing anxiety or misunderstanding:

> "I think that worries me in the sense that the patient opens it and they read the results and depending on the results they've had and their knowledge of the test results you just don't know how much stress that will put them under without having a second person there with them to reassure them to say, right, this is that, but it could also mean this, or it could also mean this. So that could cause unnecessary stress for patients."

Furthermore, staff were concerned that currently doctors use their notes as an 'aide memoire': doctors would need to change their practice significantly to use the medical record in a different, possibly more defensive, way, and medical notes would need "tidying up" before giving patients access. Consequently, some practices reported only giving access to very limited items as standard.

Other complications with access to medical notes raised by one practice manager were safeguarding concerns and third parties being mentioned. Potential breaches of data with medical records being unsecure at a patient's home environment and the confidentiality of a Gillick competent minor's records being breached were also raised as potential issues.

Practice staff did feel that allowing patients access to their records would enable them to take more control and responsibility for their own health. Patients would then not need to pay for a print out and could check for errors:

> "If they have access to it, they can take control of their own and be responsible for their own healthcare in making sure they get things like immunisations for example as it will be on their records. As I say it is really important to encourage people to take control and be responsible for their own health."

Interestingly, at one practice access to the DCR coded medical record did not lead to increase workload despite anxieties that this would occur.

Risks and benefits of online services – appointment wastage/inappropriateness

A recurring theme was the risk of inappropriate use of appointments with online appointment management. Reception staff felt that they have the skill and experience to allocate the appropriate healthcare professional, type of appointment and appropriate appointment length for different patients/issues. Staff were concerned that the ability to ensure that patients receive what they need may be lost when using online services. If appointments bookable online with healthcare professionals other than GPs were to be opened up, education of patients was felt to be needed, for example, to ensure that patients understand the difference between a phlebotomist and a nurse.

Practice staff highlighted the issue that currently if online slots are unfilled, they are then "wasted" as they can't be used by reception:

> "We have a number of online bookable slots and we find that they don't tend to get booked even though they are released in advance in quite a decent time frame and the majority of our people signed up to online access are the young generation who would use them potentially."

Partly for this reason, the choice of online GP appointments offered by practices is often very limited, sometimes with just one or two appointments per day available and these being only for a telephone consultation. One surgery has recently moved away from online services entirely. The practice used to have one third of their GP appointments available to book online. These have now been removed. Booking face to face appointments online was incredibly popular but this functionality was removed in favour of telephone first access.

Risks and benefits of online services – workload

There was acceptance that there has been a change in the narrative of health service use and in the role patients have in managing their own health. Practice staff felt that better use of online services would relieve some of the burden on practice. However, both GPs and practice staff expressed concern that online services may lead to increased workload for general practice and to patient anxiety.

One practice manager raised the issue of GDPR (General Data Protection Regulation) and believed that this will make the identification process for online services things more complicated, namely what identification is required and how this is stored. Practice staff appreciate that more services available online should free up the phone lines and save GPs and some other practice staff work. Indeed, the threat to job security, especially for receptionists, was highlighted. This raises the issue of receptionists being asked to promote a service that could potentially remove their job. Anxieties over job security were expressed by practice staff, particularly for receptionists who were concerned that the shift towards greater use of online services might render their roles redundant in the future.

> "And I get concerned about how many actual members of staff we would need if everyone's booking online. What happens to receptionists?"

To date, staff felt that online prescriptions have helped the burden of work and online appointment booking has probably cut down calls. Access to medical records has increased management workload. GPs expressed concern that instant messaging/email could increase workload significantly.

Practice staff are concerned that anxiety caused by accessing medical record or test results may lead to increase workload when patients contact practice for explanations, but agreed that access to the DCR coded medical record did not lead to increase workload.

Risks and benefits of online services – data security

Practice staff were concerned about data security and confidentiality in the context of expanding access to different online services, with full access to medical records being of particular concern as discussed previously. Views included those of a practice manager who felt that a guarantee regarding safety and confidentiality of online services was needed prior to expanding the rollout of services.

Risks and benefits of online services – clinical safety

New online technology means there are currently more access methods into general practice and all correspondence needs to be checked, and responded to if necessary, in a timely way for clinical safety reasons.

Specific concerns – current state of the workforce

There was a clear appreciation across all patients and professionals that GPs are currently under intense pressure and at risk of burning out. Focus group narratives indicated that patients can be perceived by staff to be a burden.

Practice Managers highlighted the recruitment crisis for GPs, with one describing the current situation as being at "a critical point". An increase in part-time working practices over recent years was also reported to have decreased capacity.

There was an acknowledgment by practice staff that they need to widen the skill mix/scope for patients to be dealt with by staff other than GPs for example GP associates, Para GPs, triage nurses and clinical pharmacists. Patients agree that simple complaints do not need be dealt with by a GP.

As described in an earlier section, practice staff also expressed fear that increasing use of technology may threaten receptionist jobs.

7. Conclusions

The evidence relating to the effectiveness of online services to support general practice

There is clear evidence of patient satisfaction with GP online services. Patients find that they:

- are convenient
- facilitate self-management, prevention opportunities and control over care
- improve access to GP services, for example through reduced waiting times and availability out of hours

There is evidence that the use of online services enhances access for certain groups, including working individuals who cannot take time off to see a GP. Access to medical records appears to be highly valued by patients and has been shown to improve engagement with patients which can lead to improved communication, improved adherence to medication, improved adherence to lifestyle advice (with subsequent improvement in some elements of preventive care) and shared decision-making.

Certain groups of patients are known to be less likely to use technology. Those relevant to Surrey Heath CCG include adults over the age of 65 years who live alone, and people with low computer literacy. Strategies to ensure that these groups do not experience inequalities in access to GP services are important.

Adoption and use of GP online services by patients can be improved through:

- good communication with patients – particularly from healthcare professionals in general practice teams – about availability and safety of these services
- patient involvement in the development of and communications relating to online services
- provision of relevant facilities/technology within practice settings along with availability of trained practice staff to assist patients
- simplicity of the system

Evidence reviewed for this project relating to the general use of technology, including online services, to improve efficiency and health outcomes in general practice suggests that technology may help with efficiencies in general practice, but that the potential opportunities and benefits have not been fully realised. The relevant evidence base is constantly evolving and growing.

Evidence of a positive impact of online appointment and prescription management on practice administrative efficiencies is limited to date: this is due to the uptake in most areas being too low to demonstrate impact.

Clinician concerns include impact on workload, training needs relating to the use of technology, confidentiality and governance issues. Further insight gathering work amongst general practice clinicians and the wider team would be valuable in terms of identifying how these issues might be addressed.

Analysis of the use of online services by the Surrey Heath CCG population to identify any associations between patterns in usage and demographic factors

Approximately one third of the GP-registered population of Surrey Heath CCG were found to be registered to use at least one GP online service. Variation was seen by surgery, with one surgery having more than 50% patients registered for online service use. The most popular services for which patients have registered are online appointment management and online prescription requests. A greater proportion of women (54.8%, 19,362/35,340) compared with men (45.2%, 15,978/35,340) were found to be registered for online services, and patients aged between 45 and 54 years were most likely to be registered for at least one service. The majority of people registered for appointment management had never, however, actually booked an appointment online.

For appointments booked using the online service, the peak age groups were found to be 65 to 69 years and 70 to 74 years. The majority (64%, 3,850/6,042) of patients using the online appointment management service made only one to two appointments online during the one-year period. 22% (1,322/6,042) made 3 to 4 appointments online and 14% (870/6,042) made 5 or more (of whom 2% (117/6,042) made 10 or more appointments online).

Women and older adults were, again, more likely to use online services to manage their prescription requests. Approximately half of patients using the online service to request prescriptions were found to have made between one and 5 requests online, with a quarter of patients making more than 11 requests during the one year period.

Use of the Mosaic Public Sector Tool to segment the Surrey Heath CCG population according to their use of online services, thereby identifying groups that are more and less likely to use these services

The Mosaic analysis undertaken to date has indicated that there are a number of Mosaic Groups and Types within the Surrey Heath CCG population, for example Rental Hubs and Family Basics, which characteristically display early adoption of new technologies and high internet use, who have not registered for the use of GP online services. Further exploration of potential barriers for this Group in registering to use these services is recommended.

Insight gathering work to explore barriers and enablers to the use of GP online services

For some patients, implementation of online services is recognised as being helpful by patients and staff in general practice, and is accepted to be the future direction of travel. Numerous barriers to optimal implementation and use have, however, been identified during this work. There are also concerns that online services will not be accessible to certain population groups who may be left vulnerable to health inequalities if alternative routes of access do not remain open for them.

Positive feedback was given by all groups around the use of online prescription and appointment management, but the scope of services which are offered tends to be limited to only these services, which in turn limits the attractiveness and usefulness of the services for patients. Furthermore, technological issues are a significant barrier to the uptake of online services by patients.

For the workforce, the perceived risks, competing policies and current workload all appear to be paralysing moves towards system change and are preventing online services from being implemented to their full potential. Clinicians in particular seem very wary about new policies relating to healthcare delivery, as previous changes have led to ever increasing demand. There are mixed views amongst the workforce with regard to whether or not online services have helped overall to reduce the burden of work, or whether certain services have made things worse.

Access to general practice overall remains a significant issue, with conflicts between what general practice staff believe should be offered to patients, and what is feasible given capacity constraints. The loss of continuity of care was often cited as being a result of attempts and initiatives to improve access: this has led to dissatisfaction amongst patients, inefficiency of the use of consulting time and perceived reductions in quality of care overall. Extended access is seen by some as a potential solution to access issues, but there is disagreement over whether or not extended access should be reserved for certain groups and the limiting factor for extended hours remains workforce capacity.

GP discourse was at odds with that of the patients on a number of topics. For example, GPs appear to perceive that a key role is to protect NHS services from the consumerist model. There were concerns that ever increasing access will inevitably lead to increasing demand, and that patient education and signposting with patients taking more responsibility for their health and increased self-management is vital. All groups, including patients themselves, appeared to agree, in general, that patients should be empowered to have a greater role in managing their own health.

8 Recommendations

Lewin's Force Field analysis model, which divides factors into those which promote and those which hinder change, was used to organise the findings from this project into a framework for exploring the factors that might influence the uptake and implementation of online services (Figure 10).

Figure 10. Factors influencing the uptake of online services in general practice

Factors for:	Factors against:
Change in healthcare service narrative to increase patient empowerment and self-management	Poor promotion of services
Highly convenient and quick	Scope and flexibility too limited
Convenience of accessing services out of hours	Technical issues
Government support for increased use	Data safety concerns
Targets	Demand overwhelming capacity
	Importance of preserving continuity of care
	Poor uptake by younger, working age people
	Variation between practices
	Third-party provider

The factors illustrated in Figure 10 have formed the basis of the following recommendations:

1. Developing an effective and efficient online system requires investment in careful planning and management – including piloting and evaluating. Sufficient project management should be identified to support practices to review current services and implement a more comprehensive online service offer.

2. A key recommendation of this report is the need to engage with low users of online services, for example younger working age people, to identify their concerns and reasons for not using the services. In addition to engagement with low users with need, further analysis of use in the context of need is recommended.

3. In order to optimise the use of online services they should be better promoted using a range of different strategies and effective channels to those currently adopted, for example better designed practice web sites, information on waiting room screens, text messages, emails, leaflets handed out by GPs, information on other letters and prescriptions and a

possible national campaign. An evidence-based social marketing approach could be considered to explore which channels of communications would be most effective for different groups within the population.

4. The possibility of expanding the scope of appointments available online should be explored, with the inclusion of adequate patient information to enable patients to select the appropriate appointment for their need, for example, through:

   - increasing the range of healthcare professionals for which appointments may be booked – nurse appointments are a particular priority for patients
   - offering clinic appointments online, for example flu jabs, chronic disease reviews and blood tests
   - offering flexibility in the length of an appointment that is bookable online
   - offering access to same-day face-to-face or telephone appointments online

5. Patient education, empowerment to self-care and take responsibility for their own health, and clear navigation/signposting at the time of booking appointments online, are all important to managing demand in general practice.

6. Tackling a range of technical issues is likely to improve online service uptake and use, such as:

   - simplification of the registration process and development of clearer instructions for patients on how to register, use services and troubleshoot
   - improving communication with EMIS and exploring the possibility of a helpdesk functionality or a clear system of feedback for patients and practices to report issues and make changes
   - investment in a standard online booking system for use across practices to enable all practices to work together, thereby facilitating the pooling of resources and capacity

7. Consideration should be given to the development of mechanisms by which patients can communicate electronically or via digital technology with the practice (ensuring data security and clinical safety).

8. A range of access methods should be retained to ensure equity of access for patients, with consideration to prioritising, for face-to-face consultations, vulnerable patients or those for whom online service use is particularly challenging.

9. Further work is needed to address the concerns of GPs and general practice staff regarding patient access to their full medical record, with clear guidance and training needed on implementing this type of access whilst ensuring that patient information remains secure.

10. Continuity of care is a priority for many patients and clinicians. Consideration should be given to exploring how this might be maintained and prioritised in the context of system changes, particularly for vulnerable or frail elderly patients.

11. Recruitment and retention of GPs should remain a priority. The use of the wider workforce should be optimised in order to build workforce capacity and meet demand, particularly in the context of delivering extended access.

12. Optimising the use of extended hours appointments in order to achieve equity of access should be a key consideration.

Acknowledgements

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