

‘Keeping an eye on things’



People’s experiences of home blood pressure monitoring in Oxfordshire and Buckinghamshire

February 2022

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Executive summary

This report is the result of a collaborative project led by Healthwatch England and supported by five local Healthwatch teams, including Healthwatch Oxfordshire and Healthwatch Bucks.

Healthwatch were asked to evaluate the NHS Blood pressure @home programme (BP@home) by listening to patients about their experiences of home blood pressure monitoring and to make recommendations to inform future 'remote monitoring' programmes. Due to challenges understanding the experiences of GP practices and in contacting patients enrolled on the BP@home programme, the project expanded its scope to include anyone who monitored their own blood pressure.

The study used a combination of a patient survey and in-depth interviews to understand people's experiences of home monitoring. Data were collected from August to October 2021. The analysis is based on 159 completed patient surveys and in-depth interviews with six people who monitor their blood pressure themselves.

Participation was low from people in black, Asian and minority ethnic communities, poorer groups, and people with less access or ability to use digital technology. These groups might be at greater risk of health inequalities and require more targeted interventions. Therefore, the report should not be taken as representative of the whole population across Oxfordshire and Buckinghamshire.

The results show that people monitor their blood pressure for different reasons and experience it in different ways. Although most people's experiences are positive, and they find it convenient and relatively easy, some people require support to use a monitor and others would prefer to have their blood pressure taken at their GP practice.

Several factors are likely to encourage people to take part and remain engaged in home BP monitoring. These include having access to clear information about blood pressure and how to check it, flexibility in how readings can be sent, and good communication and regular feedback from GP practices.

1 Recommendations

Considering the findings presented in this report, we propose the following recommendations for supporting people to monitor their blood pressure at home and for blood pressure monitoring programmes.

- **The CCGs in Oxfordshire and Buckinghamshire work with primary care providers to increase support to people who monitor their blood pressure at home.**

This might include:

- Support to obtain a suitable monitor, such as:
 - What to look for when buying a suitable monitor, how to check it is working properly, and when it should be replaced
 - Where to find monitors adapted for people with mobility issues (e.g. those who would have difficulty putting a cuff on)
- Accessible information and instructions on how to take blood pressure and send readings, including:
 - More information about blood pressure and monitoring at the outset
 - Instructions on how to use the monitor and advice on how to get accurate readings at home
 - How to check the monitor is working accurately (such as calibrating them against surgery devices)
 - Optimal blood pressure range and what to do if readings are outside this range
 - Clear instructions on how and when to send readings
 - Signposting patients to NHS-approved websites (e.g. <https://www.england.nhs.uk/ourwork/clinical-policy/cvd/home-blood-pressure-monitoring/>) and videos (e.g. www.bhf.org.uk/information-support/support/manage-your-blood-pressure-at-home)
 - Support people who have difficulties checking their own blood pressure by training and support for carers (including both professional and unpaid or family carers)
- Provide patients with a greater range of options for sending readings and the choice to use their preferred method, including:
 - Text message (SMS, WhatsApp etc.)
 - GP website (Patient Access)
 - Microsoft Excel spreadsheet
 - NHS app
- Provide patients with feedback and follow-up when they send readings:
 - Acknowledgment of receipt
 - Regular communication and feedback about readings
 - Follow-up with patients about their progress and listen to questions and concerns.
- **NHSX develop or promote use of a mobile ‘remote monitoring’ app that people can use to record blood pressure and other lifestyle monitoring data (weight, diet, exercise).**

Key factors to consider include:

- Simple user interface
- Easy to navigate features
- Straightforward instructions and process of recording and sending readings (similar to entering utility meter readings)
- Clear information on blood pressure and taking readings (including expected ranges, links to website and articles etc.)

- Ability to track progress (e.g. graphs)
 - Light internet usage for people without access to home broadband Wi-Fi
- **Oxfordshire and Buckinghamshire CCGs commission research on access to and use of home blood pressure monitoring by people in black, Asian, and minority ethnic groups.**

2 Background

According to the NHS home blood pressure monitoring website ([NHS 2021](#)), more than eight million people in England are diagnosed with high blood pressure (hypertension). Hypertension is a serious condition that increases the risk of heart disease and other health problems (World Health Organization 2021).

In 2020, NHS England and NHS Improvement introduced a ‘Blood pressure @home’ programme (BP@home), whereby patients with hypertension are given a digital blood pressure device (a BP monitor) to take regular readings at home and send them to their GP practice for review. Studies have shown that home monitoring can help manage patients’ conditions and lower their blood pressure (Walker 2019, McManus 2018). Other benefits include more accurate readings (some people feel anxious in medical settings, meaning that their blood pressure can go up), people monitor their blood pressure for longer, and saving both patients and their GP practice staff time (NHS 2021).

Since October 2020, the NHS has given out thousands of BP monitors to patients in England as part of the BP@home programme (NHS 2021). The NHS asked Healthwatch to evaluate the programme and understand the impact of remote monitoring approaches on hypertension patients. Five local Healthwatch teams around the country were asked to work with their local clinical leads and GPs to understand people’s experiences of home blood pressure monitoring and how it affects their health and wellbeing. Healthwatch Oxfordshire and Healthwatch Bucks worked together to produce this report.

The findings of the report will be used to make recommendations for delivering better patient experiences and improve engagement in future remote monitoring programmes.

3 Methods

The original aim was to evaluate the NHS BP@home programme through two surveys: one for GP practices involved in the programme and another for patients who had been enrolled in it and who were given a BP monitor. Healthwatch

England developed the questionnaires with input from five local Healthwatch teams.

The GP survey looked to find out how eligible patients were identified, and BP monitors distributed. The patient survey focused on people's experiences of checking their own blood pressure and sending readings. Healthwatch England contacted the clinical leads in each county and asked them to inform GP practices involved in the BP@home programme about our study. The local Healthwatch teams followed up with each GP practice, invited them to complete a GP survey questionnaire, and asked them to contact patients to take part in the study (because of patient confidentiality, we could not contact patients directly).

Unfortunately, some GP practices were yet to start the programme and we were unable to identify enrolled patients. Therefore, in line with the other local Healthwatch, we expanded our survey to include anyone who monitored their own blood pressure. People were able to fill in an online or paper questionnaire. They could also complete the survey over the phone by calling a Healthwatch number.

We used a range of approaches to tell people about the survey. These included Patient Participation Groups (PPGs) at local GP practices, social media, Parish newsletters, emails, Healthwatch news briefings, and the Clinical Commissioning Group (CCG) newsletter.

People who completed a survey were asked whether they would like to talk to us in more detail about their experiences of BP monitoring. In our area, we selected six of these people (four in Oxfordshire and two in Buckinghamshire) to follow up with a telephone or online Zoom interview. We chose participants based on their diverse backgrounds and different experiences of blood pressure monitoring.

To be consistent with other local Healthwatch, we offered the six interviewees a £20 shopping voucher as a thank you for giving us their time.

4 Results

Of five GP practices involved in the BP@home programme in Oxfordshire and Buckinghamshire, two had not fully implemented it or distributed monitors to patients with hypertension at the time of the survey and two others did not respond. One GP shared their experiences of supporting patients who were monitoring their blood pressure at home. However, they had not received any monitors under the programme and had asked patients to obtain their own monitor. The GP reported that patients had received offline support from the practice and that the practice benefited from a reduced workload. They said their main challenges were measuring which patients did not engage with home blood pressure monitoring and understanding the reasons for this.

The patient survey was open from 27th August until the end of October 2021. This report summarises the responses from 159 people who completed a questionnaire up until 8th October. Of these, 99 told us they were registered with a GP practice in Oxfordshire and 60 in Buckinghamshire.

Below is a summary of some key characteristics of people who took part in the survey. See the appendix for complete information for both Oxfordshire and Buckinghamshire:

- 61 people (60%) described having a disability, including physical or mobility difficulties, mental health conditions, sensory impairment, and hearing loss.
- 90 people (57%) were aged 65 to 79 years, 45 (28%) were aged 50 to 64 years, 13 (8%) were aged 80 years or over, and 11 (7%) were aged 25-49 years.
- 98 people (63%) identified as women and 55 (36%) as men.

We received very few responses from people from black, Asian and minority ethnic communities (see Table 8). Only 23 (15%) people self-reported as being in a poorer financial situation (Table 10), and most people said they had access to digital devices (Table 11) and felt confident using them (Table 12).

Therefore, it is important that the results are understood from the perspective of those groups and communities that took part in the research and are not taken as representative of the whole population across Oxfordshire and Buckinghamshire. This report sets out the responses received. It does not necessarily reflect the experiences of all service users.

The results below summarise the survey responses.

- The first sections (4.1-4.5) report data from 159 surveys covering anyone who has a BP monitor and compares Oxfordshire with Buckinghamshire.
- Section 4.6 focuses on specific questions asked to 49 people who were advised by their GP to monitor their blood pressure.

To add insight to the survey, we have also included comments shared by people in the interviews and additional information provided in survey responses.

4.1 Getting a blood pressure monitor

We asked people how long they had been taking their blood pressure at home. Table 1 summarises the results.

Table 1. When did you get your BP monitor?

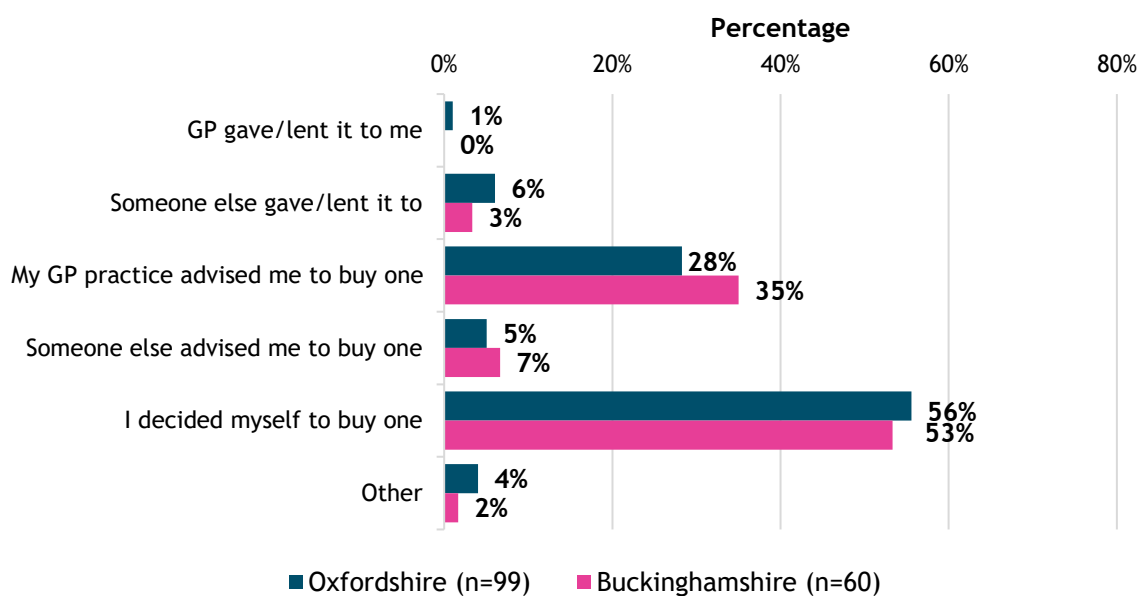
Response	Oxfordshire		Buckinghamshire	
	Number	%	Number	%
In the last 2 months	3	3%	3	5%
Between 2 and 4 months ago	0	0%	2	3%
Between 4 and 6 months ago	2	2%	3	5%
Between 6 months and a year ago	8	8%	3	5%
More than a year ago	84	87%	49	82%
Total	97	100%	60	100%

Of 157 people who answered the question, most (87% in Oxfordshire, 82% in Buckinghamshire) said they had got their monitor more than a year ago. Only 13 people in total had got their monitor within the last six months. This means that most of the people who took part in the survey started checking their blood pressure before the NHS implemented its BP@home programme in Oxfordshire and Buckinghamshire.

4.1.1 How did people get their blood pressure monitor?

We asked people about where they had got their BP monitor from, whether they had been given or lent one, or if they had decided themselves to buy one (see Figure 1 below).

Figure 1. How did you come to have a blood pressure monitor?



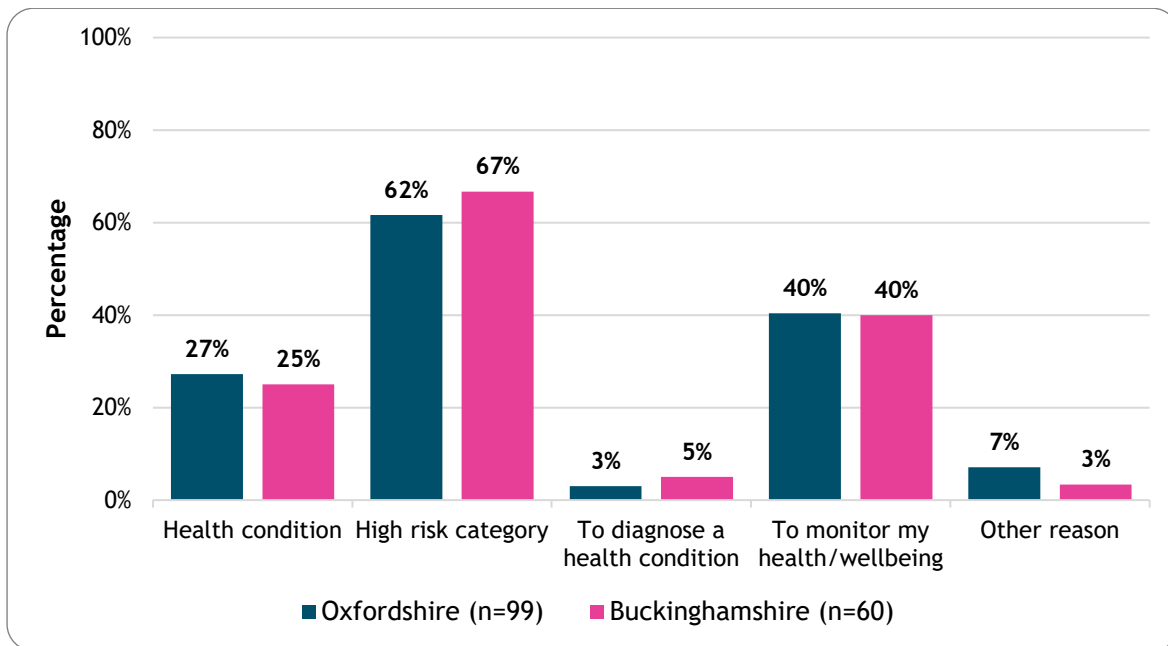
As the figure shows, more than half of people from both areas (56% in Oxfordshire and 53% in Buckinghamshire) said they had decided themselves to buy a BP monitor. Around 28% in Oxfordshire and 35% in Buckinghamshire said their GP had advised them to buy a monitor to take readings at home.

Few people were recommended monitoring or given or lent a monitor by a friend or relative. Only one person told us their GP practice had given them a monitor. Therefore, overall, more than 90% of people said they had bought their own monitor (either they decided themselves to buy one or were advised to buy one).

4.1.2 Reasons for home blood pressure monitoring

We asked people to tell us the main reasons why they monitored their blood pressure. Figure 2 below summarises the results.

Figure 2. Why are you monitoring your own blood pressure?



Note that people might monitor their blood pressure for more than one reason, therefore percentages in the figure total more than 100%.

The reasons people gave for checking their blood pressure were similar in Oxfordshire and Buckinghamshire. Most people (62% in Oxfordshire, 67% in Buckinghamshire) said they were in a higher risk group (e.g. older age, a family history of heart disease, overweight, or an ethnic background known to be at risk of hypertension).

Around 40% of people said they wanted to monitor their health, while around a quarter had an existing health condition such as cardiovascular disease, chronic kidney disease, or had previously had a stroke. Of the six people we interviewed in more depth, two had decided to buy a monitor because of a family history of heart disease or another serious condition.

One said:

“I had never even thought about my blood pressure to be fair. Then I realised that actually, there’s a chance or risk of things like strokes, heart attacks with high blood pressure. And I was like, ‘How stupid am I not even considering my own health, my lifestyle, and leaving it to chance?’”

Another said they had decided to buy a monitor when they were put on medication for high blood pressure.

Several comments in the survey and the interviews referred to home blood pressure monitoring as a way of “keeping an eye on things” and to keep the GP practice informed about their health.

All the people we interviewed told us about when they would check their blood pressure. Besides checking regularly, two described taking readings when they felt

particularly anxious about their health or if they felt their blood pressure was high. One of them carried a monitor with them when outside the home to feel safer:

“But in general, [the monitor] goes everywhere with me. I feel safer that should [my BP] be really high while I'm out... when I used to go on shopping trips, it used to be in my bag.”

Some people said they monitored at home to avoid ‘white coat syndrome’ (where some people get higher readings when they have their blood pressure taken in a medical setting).

One interview participant said:

“What happened was that my GP was taking my blood pressure sort of annually, just keeping up to date with my health. And it did begin to indicate that it was getting higher than it should be...we discussed the whole process of having my blood pressure taken in the surgery and she mentioned this ‘white coat syndrome’, where you're likely to be more tense and therefore perhaps raise your blood pressure when you're in a surgery situation.”

Another felt they got more accurate results by measuring their blood pressure at home over the course of a week and then taking an average of the readings. This gave them a better understanding of their blood pressure in their own environment rather than a one-off reading taken at the doctor's surgery:

“...I'm all for taking your blood pressure at home because I think you get a more accurate reading.”

Another person had been asked by her doctor to record her blood pressure at home because of restrictions on face-to-face consultations during the Covid-19 pandemic.

Some of the people we interviewed said they monitored their blood pressure along with other health and lifestyle factors such as diet, weight, and exercise. They considered it a personal responsibility to look after their health:

“I feel one should take personal responsibility for looking after your health...So I exercise regularly, and I monitor my weight as well. When the GP or the practice nurse suggested I could check my blood pressure, I was motivated to do it because it was another thing I could do as a way of checking that I was keeping healthy.”

One interview participant reflected on how looking after your health can help prevent illness, rather than leading to a need for treatment:

“...we've all got to be a bit more responsible for our health not just, ‘Oh, I've got a problem lets go and see the doctor.’ Because then you're chasing it rather than trying to stop it happening.”

4.1.3 Accessing information and advice

The survey asked people whether they searched for information online after getting their BP monitor. All 159 people responded, of which 62 (39%) said they did not look for any information, and 97 (61%) people said they looked online. Of those who looked for information online, 83% searched the NHS website, 20% other online resources, and 20% looked on websites with information about their specific BP monitor. Only eight people (5%) checked their local GP practice website for information (note that people could identify more than one source of information, so percentages add to more than 100%).

People who had not been advised by their GP to buy a monitor were asked whether they had contacted their GP practice since getting a BP monitor. The results for 110 people who responded are summarised in Table 2 below.

Table 2. Have you contacted your GP practice about your blood pressure since getting a monitor?

Response	Number	%
No, I have not contacted my GP practice about my BP	43	39%
Yes, I contacted my GP practice with concerns about my BP	25	23%
Yes, I contacted my GP practice about something else related to my BP	42	38%
Total	110	100%

The table shows that 61% had contacted their GP practice because of a concern about their BP reading or a related issue, while 39% had not. The main related issues they mentioned as reasons for contacting their GP practice included providing a BP reading, discussing blood pressure medication, and before attending a health review.

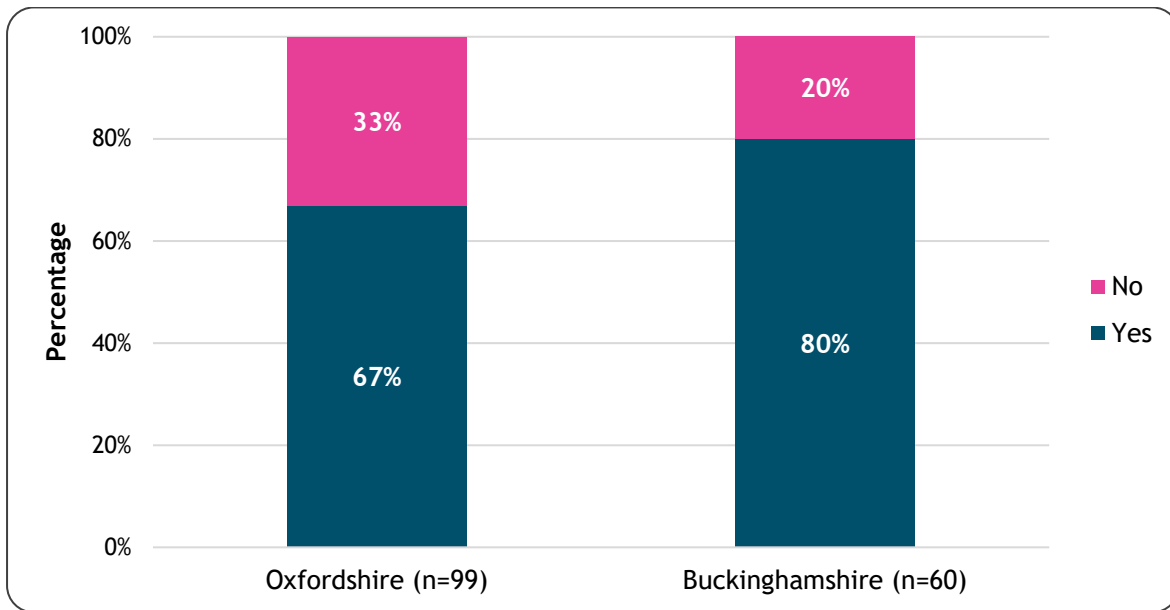
4.2 Living with a BP monitor

4.2.1 Keeping a record of BP readings

Patients who monitor their blood pressure are usually expected to keep a record of their readings over several days and then send them to their GP practice for review.

We asked survey participants whether they recorded their blood pressure readings and about the types of personal records they kept (see Figure 3 below).

Figure 3. Do you keep an ongoing personal record at home of your blood pressure readings (159 responses)?



As Figure 3 shows, most people said they had kept an ongoing record of their readings (67% in Oxfordshire and 80% in Buckinghamshire). Figure 4 below presents the different methods used by 114 people who kept a record.

Figure 4. Methods of recording of blood pressure readings at home (114 responses)

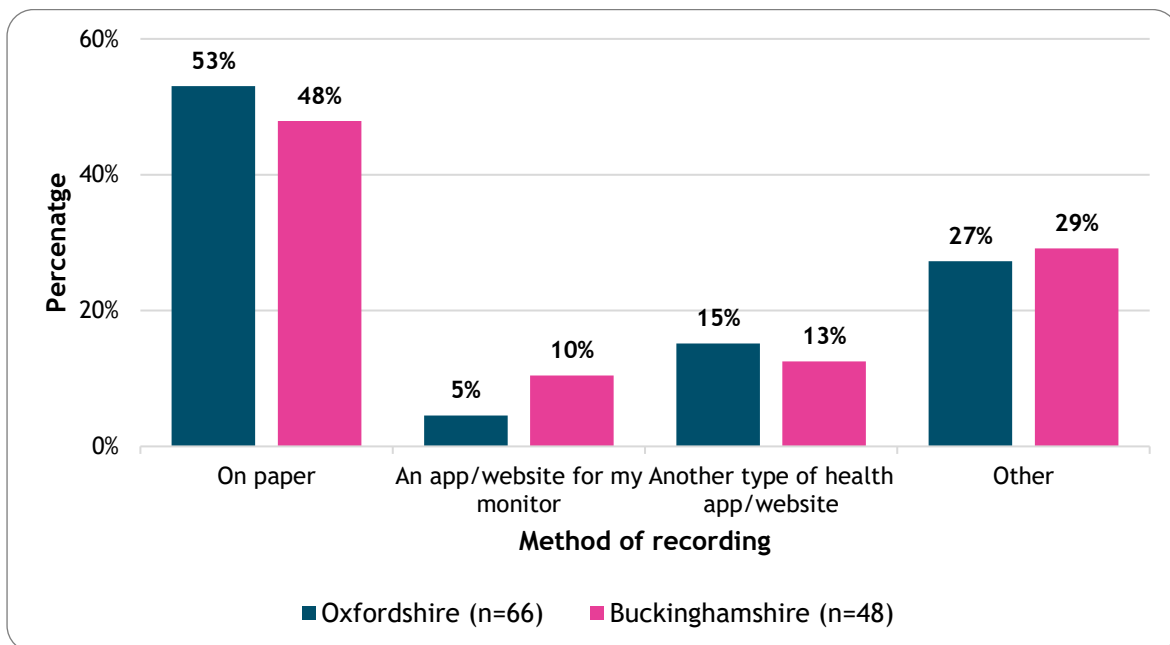


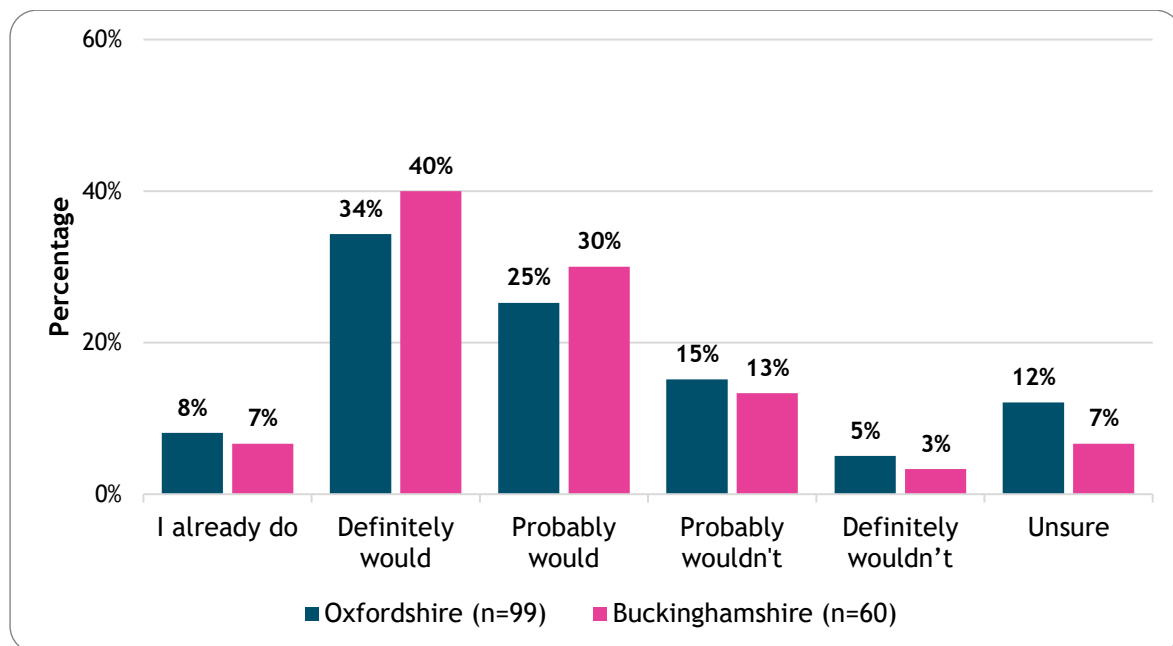
Figure 4 shows that most people noted readings on paper (53% in Oxfordshire and 48% in Buckinghamshire), while far fewer used apps or websites. ‘Other’ methods people mentioned included using the BP monitor’s built-in memory or recording readings in an electronic calendar, and several people told us they kept tables and graphs on a computer.

One interview participant told us that keeping an updated spreadsheet was useful and motivated him to regularly monitor his blood pressure:

“I do find keeping a record and creating your own little chart quite motivating because you can see the trend. That may be more motivating as an end result than just having a number each day or a pair of numbers.”

We asked people whether they would consider using an app to submit their readings to their GP practice. The results are in Figure 5 below.

Figure 5. Would you consider using an app or website to submit readings to your GP practice in future?



The data suggest that most people would consider using an app or website to record their readings (59% said ‘definitely’ or ‘probably’ in Oxfordshire and 70% in Buckinghamshire). Those who were not in favour said they disliked or had difficulty using apps or websites. One person felt that it would be “too much hassle”, while some others said they were concerned about the safety of personal information.

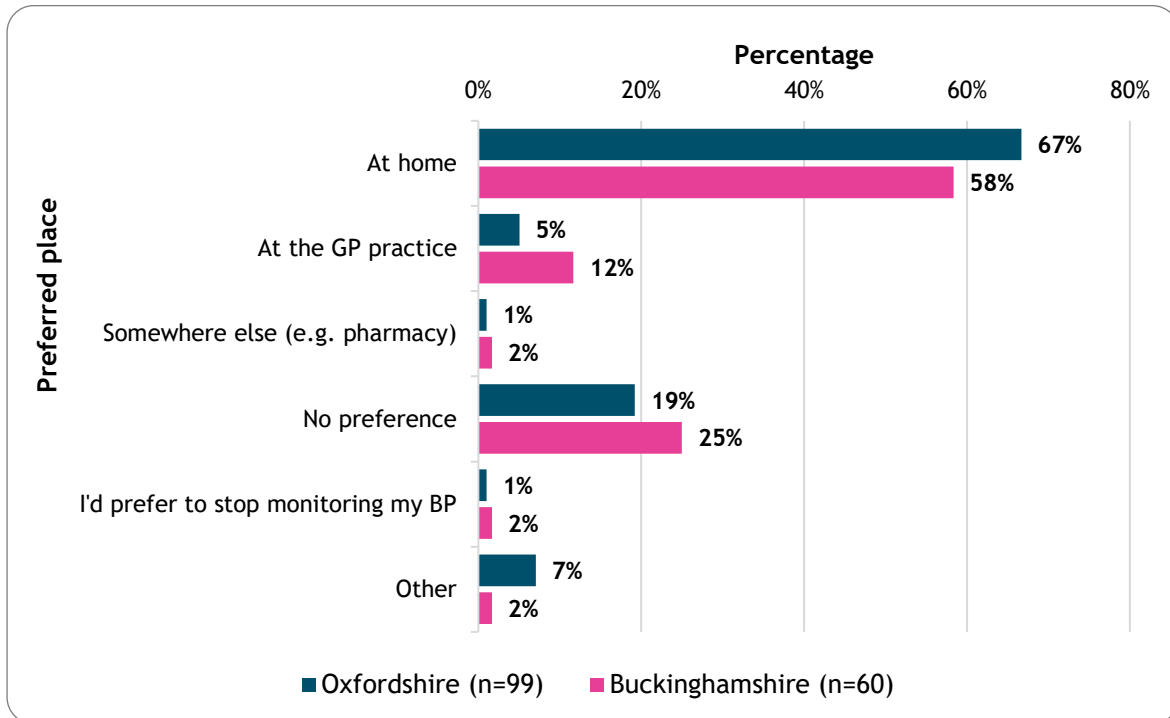
Four of the people we interviewed told us they would be happy to consider using an app to send readings to their GP. Two said they wouldn’t worry about uploading their data to an app. One person gave some insight into some key aspects:

“It depends on how easy it is. Because some apps are absolutely easy to use and some can be tricky...because I always think about people like my Mum, if they were using it how they would find it? Or getting used to using it or using it for the first time. How easy is it to manoeuvre? How good is it from when you first click the link? Would I know what to do?”

4.2.2 Where did people prefer to have their blood pressure monitored?

Figure 6 summarises where people said they would prefer to have their blood pressure monitored.

Figure 6. Where would you prefer to have your blood pressure readings taken?

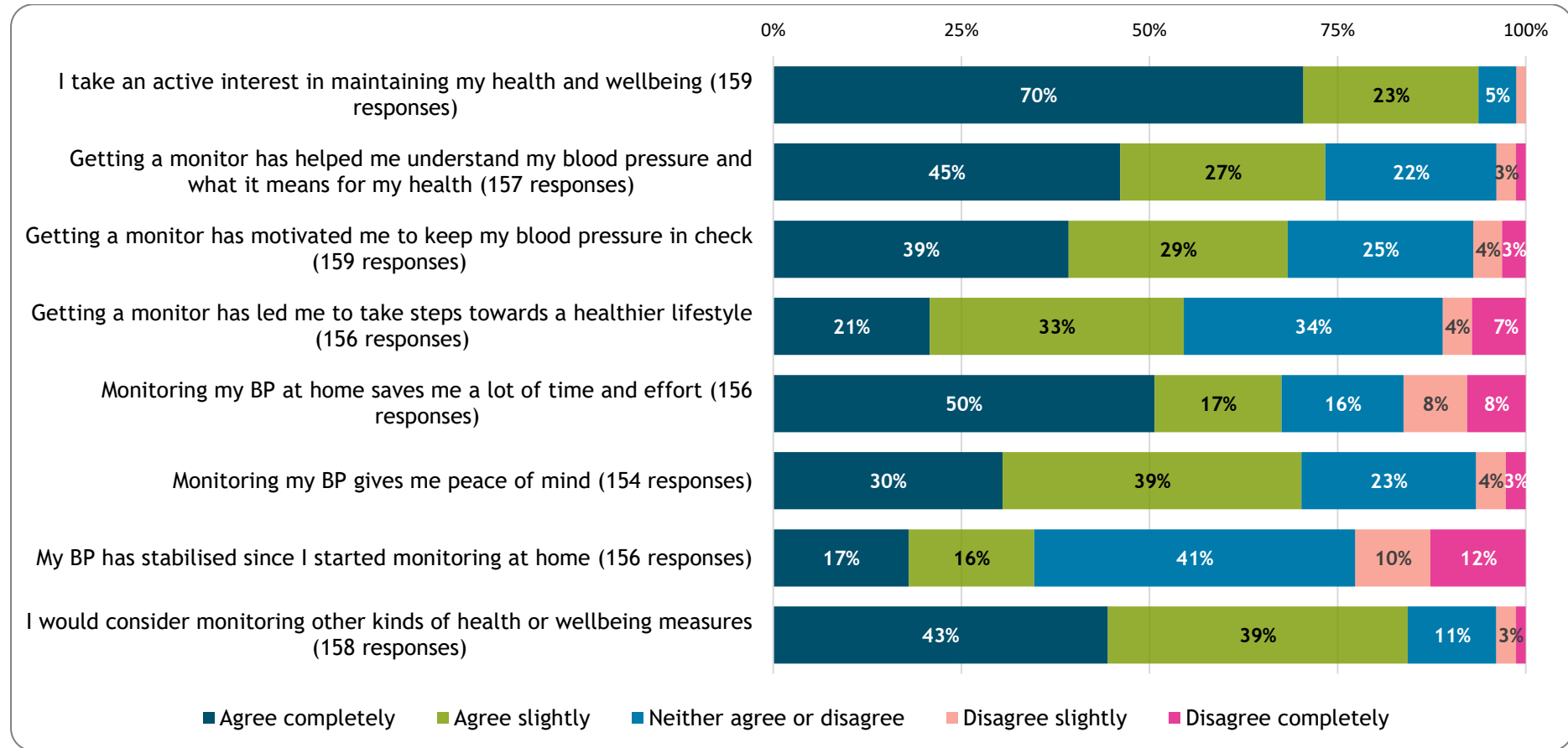


As the figure shows, most people were in favour of continuing to monitor their blood pressure at home (almost 67% in Oxfordshire and 58% in Buckinghamshire). Others said they had no preference. Some of the 'other' comments gave examples of when they would like their blood pressure to be checked by a health professional.

4.3 Blood pressure and health & wellbeing

We asked people to rate statements about their views on health and wellbeing according to how strongly they agreed or disagreed with each one. The results are summarised in Figure 7 below.

Figure 7. Monitoring your own BP and your health & wellbeing



The results in Figure 7 give the sense that many people who took part in the survey understood the potential benefits of taking their blood pressure at home and how it related to their overall health. More than 70% also agreed that they would consider monitoring other aspects of their health and wellbeing. We heard similar views during our in-depth interviews. One person mentioned that they would be open to this if it wasn't too involved and it could be done easily at home. Another said other aspects of their health was already monitored for another condition. Only 33% of people agreed that their blood pressure had stabilized since they started monitoring at home.

4.4 Use of digital devices and the internet

Recording and submitting blood pressure readings requires some ability to understand and use a monitor and other technology. We asked survey participants what digital devices they had, their access to broadband internet, and how confident they felt using online technology. Tables 11 and 12 in the appendix summarise the results.

The responses showed that 87% of people said they had access to a computer at home or at work, 69% an iPad or similar device, and 87% a smartphone. All respondents had access to broadband internet, 99% in their home, 13% at work, and 37% on a mobile phone. As noted above, these responses only include people who participated in our study and do not represent those with low access or use of digital technology.

Overall, most people said they felt confident using digital technology. More than 90% 'agreed completely' that they were confident communicating using digital methods such as email, text messaging, and mobile phone apps such as WhatsApp. More than 87% were confident looking for information on the internet using common search engines. There was more variation with other tasks. Fewer people were confident using mobile apps for banking and booking travel and using online video communication tools such as Facetime and Zoom.

4.5 Views on remote monitoring

We asked interview participants to tell us about their views on home blood pressure monitoring and remote health care in general. Four people who shared their views were generally in favour, although one interviewee added that it was not suitable for all situations and that people should still be able to choose:

“I think remote management of your health is fine and I think having the GP buying into that is good. I mean, obviously, very clearly there are going to be occasions when you want to see the GP in person.”

Two interviewees felt that people without access to technology or who are less confident using it should also have the option of seeing their GP in person. Another pointed out that people with certain disabilities or dependent on social care might need support to take their blood pressure.

One interview summarised two elements for the successful adoption of remote monitoring: assurance that the patient's health care provider is fully aware of their health status and that they can directly contact them if needed:

“I think I would still feel that I was under the care of a health professional if I knew I could go in whenever I felt I needed to and if I felt she knew about my health status. Even if it's remotely, by email, as long as she's keeping the records, she's aware of what tablets I'm on, my weight and my blood pressure.”

4.6 Experiences of people who had been advised to monitor their blood pressure

This section focuses on the survey results a subset of 49 patients who had been given a monitor by their GP or were specifically advised by them to buy a BP monitor.

We considered that this group would be reasonably representative of people enrolled on the NHS 'blood pressure @home' programme and that their experiences might provide the most useful information to inform future remote monitoring programmes. The survey asked this group a set of specific questions.

4.6.1 Interaction with the GP practice

The respondents in this group were asked about their interaction with their GP after getting their monitor.

Of 48 people who answered, 34 (71%) had been contacted by their GP practice, mainly to prescribe medication to control their blood pressure, check how they were getting on with the BP monitor, or to follow up with any concerns about recently submitted blood pressure readings.

People were also asked whether they had contacted their GP practice. Of 47 who answered, 34% said they had contacted their GP with a concern about a reading, 32% about other, related issues, including questions or problems taking their blood pressure, and questions about medication. We noted that 43% said they had not contacted their GP practice.

We also asked whether people had been given information or advice about a range of issues relating to blood pressure and self-monitoring when they got their monitor. Figure 8 summarises the responses of 47 people. Note that respondents could answer with more than one type of information.

Figure 8. Were you given information or advice on any of the following when you got your BP monitor?

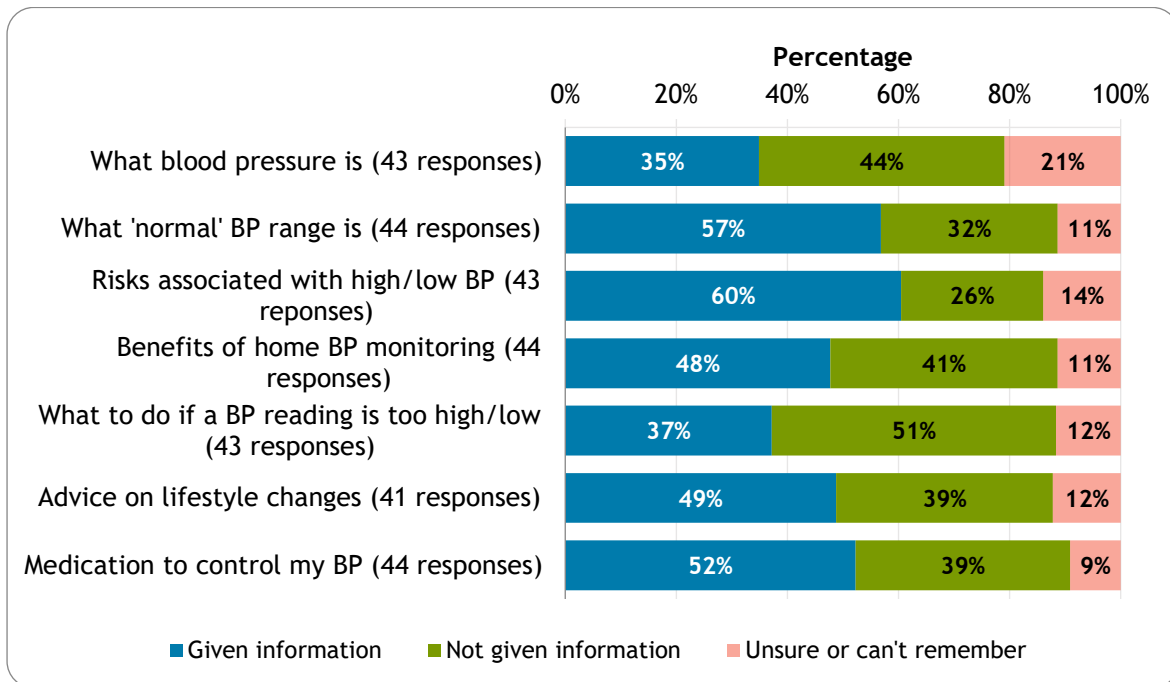


Figure 8 suggests that people were not always given information about what blood pressure is, the expected ranges, what to do if a reading was outside the expected range, and how to manage their blood pressure through lifestyle changes. Some people in the survey commented that they had searched for information themselves. One said:

“Information and advice was largely the result of research carried out on my own initiative, when I realised things were not quite as they should be, coupled with family history.”

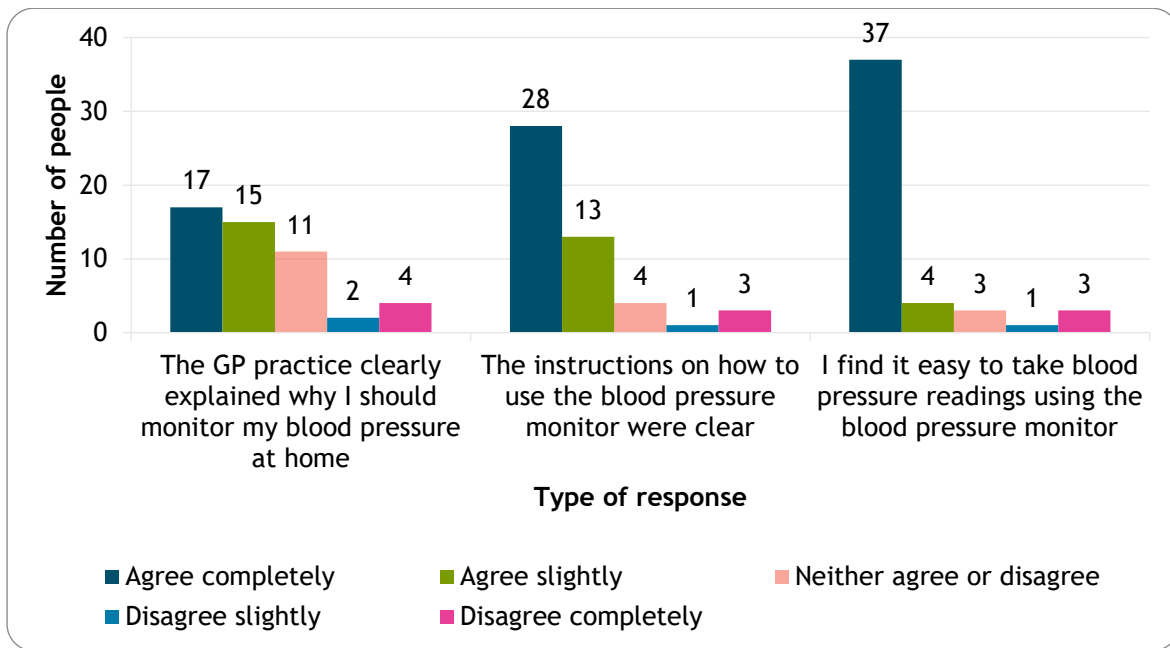
Some of the people we interviewed were experienced at taking their own blood pressure. One person knew the range it should be in and recognised that this could be different for others (for example, depending on age). Another mentioned they’d been told by a health professional a few months ago the blood pressure that would be OK.

One interviewee felt it was important for people to know what could affect blood pressure and whether anything could interact with the medication.

4.6.2 Using the BP monitor

We asked some questions about whether people had understood why they should monitor their own blood pressure, what instructions they were given about using the monitor, and how easy they found it. Figure 9 summarises the results.

Figure 9. Understanding and ease of blood pressure monitoring (49 responses)

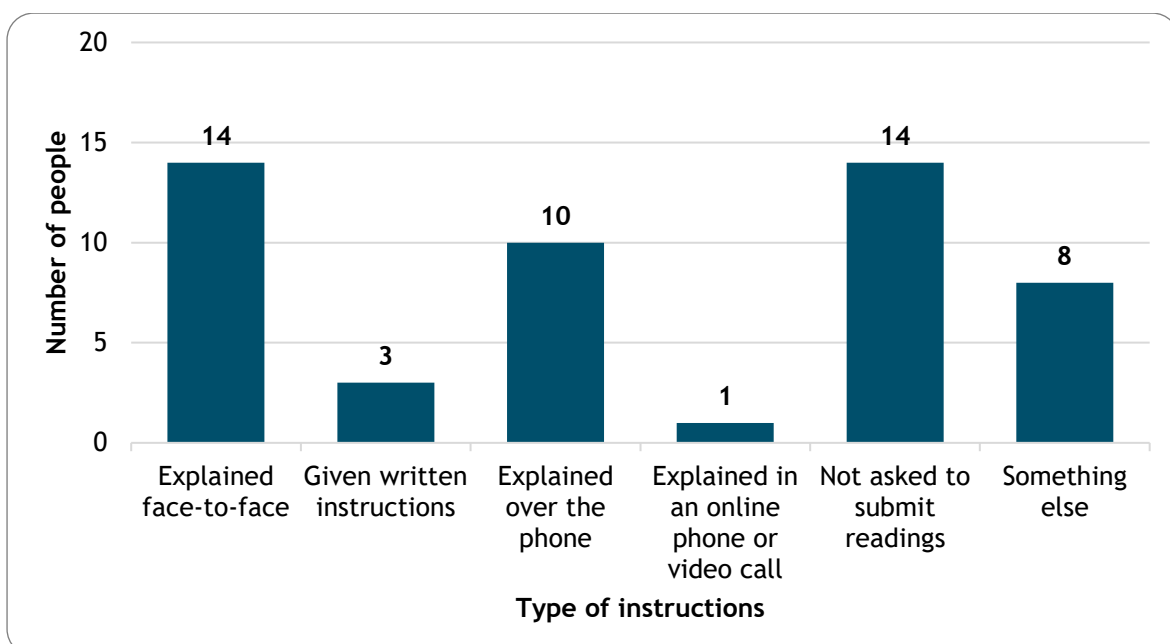


As the figure indicates, most people said their GP had explained why they should self-monitor and found the instructions for taking readings clear. Thirty-seven people said they found it easy to use the monitor. These findings are encouraging and support the feasibility of home monitoring for some people who are advised to do so.

4.6.3 Instructions and guidance for submitting blood pressure readings

Figure 10 summarises the different types of instructions people were given about how and when to submit their blood pressure results to their GP practice.

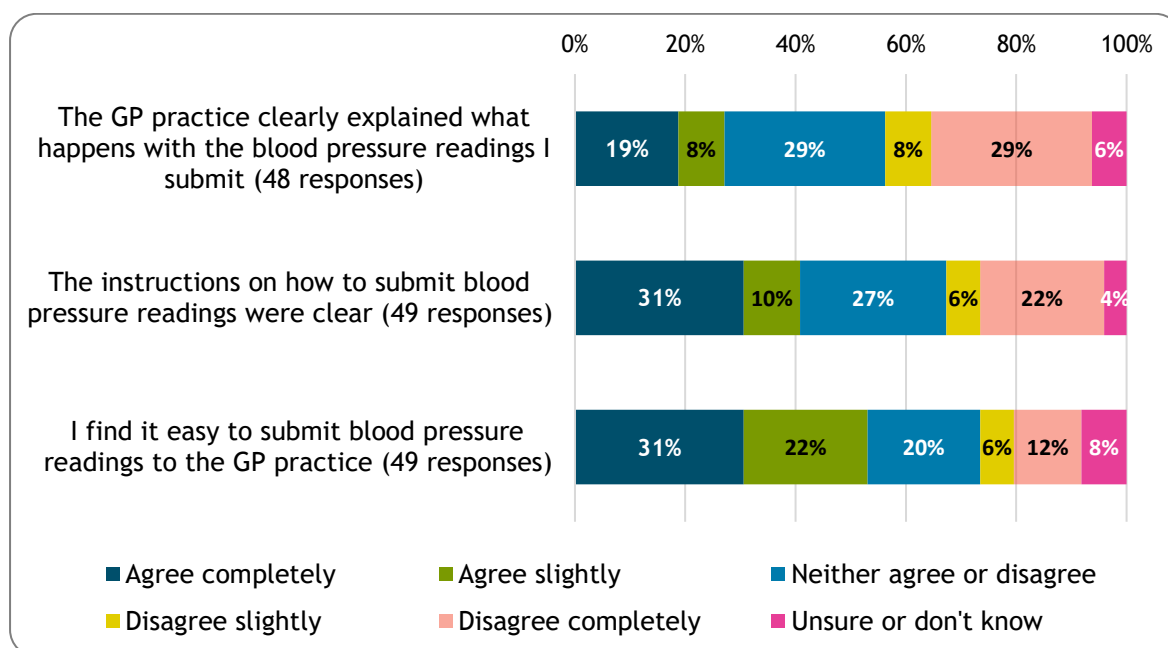
Figure 10. What type of guidance or instructions were you given by the GP practice about submitting blood pressure readings? (49 responses)



In total, 28 people (57%) said that someone at their GP practice had explained or given them instructions on submitting their blood pressure readings. These were mainly during a face-to-face consultation or a telephone call. However, 14 people also said they had not been asked to submit readings and eight people were only contacted when the GP practice required a reading (e.g. annually or for medication reviews).

Figure 11 below summarises the clarity of information and guidance given to people about submitting blood pressure readings and what GP practices do with them.

Figure 11. Understanding and submitting BP readings (49 responses)



Although 26 out of 49 people (53%) said they found it easy to submit blood pressure readings, not everyone found the instructions clear. Only 13 people (27%) agreed completely or agreed slightly that the GP practice had explained clearly what happens with their readings after they submit them.

4.6.4 Submitting readings

The group who had been advised by their GP to monitor their blood pressure at home was asked how often they were asked to submit readings. Table 3 summarises the results.

Table 3. When you were given a blood pressure monitor, how often were you asked to submit readings to your GP practice?

	Number	%
Several times a day	3	7%
Daily	3	7%
A few times a week	0	0%

Once a week	5	11%
Less often	21	45%
Don't remember	14	30%
Total	46	100%

Of 46 people who responded, almost half (45%) said they were asked to submit readings less than once a week and 11 people (25%) once a week or more frequently. Fourteen people did not remember. Figure 12 presents the methods used to submit their results.

Figure 12. What method do you use to submit blood pressure readings to the GP practice (48 responses)?

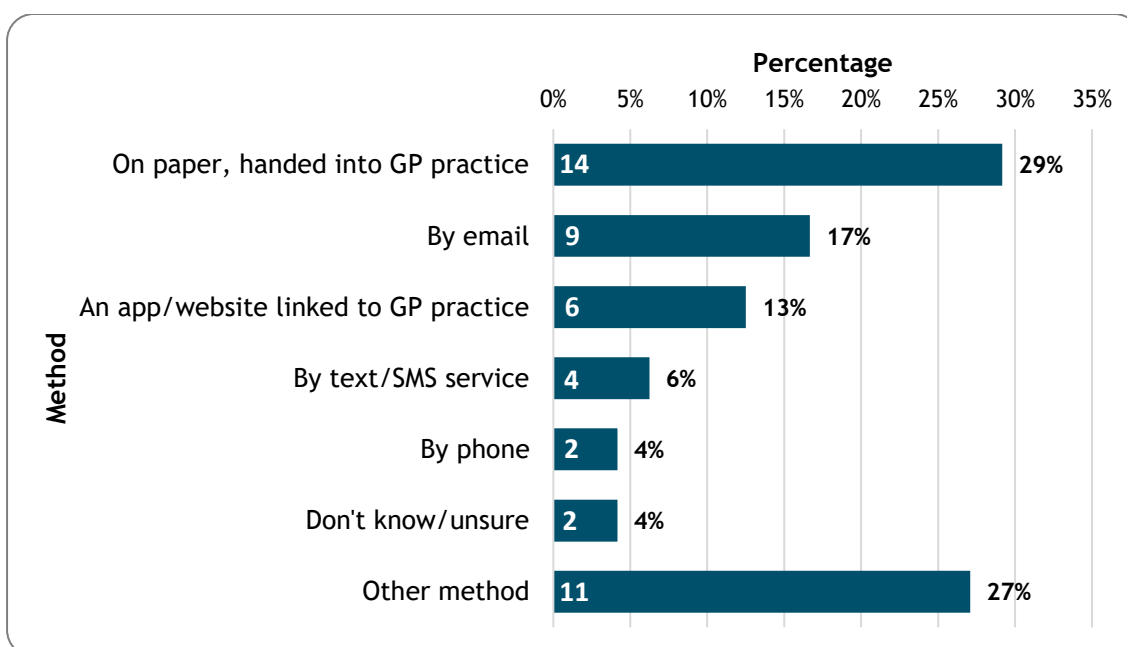


Figure 12 shows that people used various methods to submit readings. Taking a written record on paper to the GP practice was the most common method, although some people also submitted readings by email and via an app or the GP practice website. One person mentioned they had photographed a paper record and sent it to the GP by text message.

Under 'Other methods', people included comments about problems submitting readings or using different methods. Most people said they used the method because the GP practice asked them to (39%), convenience (26%), or because it was easy to do.

We asked people whether they had changed the frequency with which they submitted their readings to their GP practice since they started taking their own blood pressure. The results are shown in Table 4.

Table 4. Since you started monitoring your blood pressure, have you changed the frequency that you submit readings to your GP practice?

Response	Number	%
I have stopped submitting blood pressure readings	29	59%
I submit fewer blood pressure readings than advised by my GP practice	4	8%
I continue to submit blood pressure readings regularly as advised by my GP practice	13	27%
I submit more blood pressure readings than advised by my GP practice	3	6%
Total	49	100%

Of 49 responses, 9 (59%) said they had stopped submitting their blood pressure readings to their GP practice. The main reason they gave was that their GP no longer needed them, suggesting that these people only required short-term follow-up. Four people also said it was because they never received feedback from their GP practice about their readings. Four people said they had reduced the frequency and 13 people continue as before.

4.6.5 Benefits and challenges of home blood pressure monitoring

From the experiences that people shared in the survey and during the in-depth interviews, we can highlight several benefits and challenges to home monitoring. These are described below.

Benefits

People in the survey and the in-depth interviews commented that home monitoring was convenient, usually easy to do, and reduced the need to visit the GP practice. This freed up time for GP practice staff practice and left more appointments available for other patients:

“It is convenient to have the option of taking blood pressure readings at home and releases a surgery appointment for someone else.”

“Convenient, as I have disability and it is difficult for me to get to the GP surgery regularly.”

Five people we interviewed, who were experienced at taking their blood pressure, described ways of taking accurate readings. These included avoiding drinking coffee beforehand, being calm and relaxed, having peace and quiet, and taking readings at same time each day.

Another waited until taking their medication when they knew their blood pressure would be lower. Four interviewees said they took readings at times they knew

their blood pressure would be lower, and two took several readings and recorded the lowest one. As one participant said:

“If it comes out higher than I want it to, as I was saying, I do take three readings each time and if I can't get it down, then I do record the lowest of those three readings.”

Some of the people we interviewed told us they monitored their blood pressure alongside lifestyle factors such as diet, weight, and exercise. Besides looking after their own health, they recognised the benefits to the NHS as avoiding the need to have their blood pressure taken at the GP practice and reducing the need for medical treatment later on. One interview participant commented:

“...the time saving I was thinking I was giving them was more to do with not having to treat me for high blood pressure than not having to spend time actually taking it.”

Some people talked about monitoring and managing their blood pressure as empowering. These people described feeling more “in control of my health via my blood pressure now” of their health and better informed to talk to their GP and make decisions about their medication.

Another said that, as well as for their annual check-up, they would take readings at other times just to check it or if they felt it was high and would monitor it more regularly if their medication had been changed. They told us about a time when they had used their monitor to check their blood pressure when they had started to feel dizzy mid-morning. As well as tests by the GP they looked into the issue themselves and learned that the timing of the medication could be the problem.

We talked to someone whose blood pressure was either very high or very low:

“...so I've always kept the blood pressure [monitor] really handy and taken it at times.”

They described an occasion when they took some blood pressure measurements because they felt unwell and because they were very high an ambulance was called, and they were admitted to hospital.

Barriers

Some people with physical disabilities or mobility problems said they found it difficult or impossible to take their own blood pressure. One interview participant told us:

“Because my rheumatoid arthritis can get so bad that I can't actually use my arms properly...I live on my own, so I haven't got any friends or relatives that live near me. So basically, I have to manage somehow, even if it's slowly getting [the cuff] on. Yeah, and getting it in the right place as well. On those occasions when I do get it on, I leave the arm piece on so all I need to do is plug the other bit in. I can't go through this all day long because it's so painful.”

Another interviewee, who received social care, told us about problems with their carers, which meant they could not monitor their blood pressure:

“And the carers that came didn't really understand the machine and the way it worked. So it was, it was just frustrating and difficult to actually continue to do that...I'm not having [my BP] checked at all. It fell apart when I just didn't have regular carers, qualified or aware enough of the situation. And carers can change. They have a rota but it's nothing to say that an experienced carer might be taken somewhere else, and I have a less experienced one or a shorter time.”

A few people described having problems with their monitors. These included monitors stopping working and difficulty getting the cuff to fit correctly on their arm. One suggestion from someone new to taking blood pressure readings was to get help putting the cuff on. One person mentioned the short tube connecting the cuff to the monitor, so that care is needed to avoid the monitor swinging about.

A few people also had concerns about the accuracy of readings. It can be difficult to know whether readings are accurate or if the monitor is functioning properly. One person said they had been advised to buy a new monitor in case the old one wasn't working, while two people said it would be a good idea for someone at their GP practice to check their monitor's readings alongside a practice monitor.

Another barrier mentioned in several survey responses and described in three interviews was low engagement and follow-up from GP practices regarding blood pressure readings. For example, one interview participant said they only received automatically generated requests for readings. Another said their GP practice did not follow up if they forgot to send them.

A common theme, highlighted here by one survey participant, was the lack of feedback after submitting a reading to the GP practice:

“I am currently quite concerned as [my BP reading] is high, was submitted a month ago, 'put on the system' by the receptionist and I have had no feedback at all.”

As the above example indicates, people who were unsure that anyone was reviewing their blood pressure readings were likely to feel concerned. Three interview participants talked about the importance of receiving an acknowledgement and follow-up from their GP practice after submitting a reading:

“My blood pressure I regard as being at a healthy level, so I don't need to waste [the GP's] time. But I would have appreciated a bit of feedback, I would actually have appreciated just a little email saying thank you for sending it in...but they're busy, they've got other things to worry about at the moment.”

A potential consequence of this is that patients can feel overlooked or unsure that everything is being done to help them maintain or improve their health:

“Considering the GP surgery advised me to get a blood pressure monitor and since that time have been disinterested in my readings, despite them continuing to go up, feeling that the readings would be taken seriously would make a huge difference.”

A few survey respondents commented that these doubts had led them to stop sending in their readings to their GP practice.

One factor likely to affect engagement between patients and their GPs is the current difficulties contacting GP practices. Although two of the interview participants said they had regular contact with their GP practice, three told us about difficulties they had experienced getting through and accessing information and appointments. One interview participant said:

“They haven't told me what frequency or how many times a day and at what point they want it sent off, but that's a discussion I am looking to have with [my GP] when I submit these readings. That's if I can get through to the GP surgery because that's horrendous in itself, you know, trying to get an appointment, or trying to get through.”

The difficulties people mentioned they faced seemed to relate to contacting GP practices in general or getting appointments that they felt are currently being made worse by the Covid-19 pandemic.

5 What have we learned?

We received limited feedback from GP practices regarding their experiences of the NHS BP@home programme. Two practices had not fully implemented the programme and one GP shared their experiences with us.

Although the number of respondents from Oxfordshire and Buckinghamshire was different, the demographic characteristics (age group, ethnic background etc.) and the results of the patient survey and interviews with residents were similar. People checked their blood pressure for different reasons and experienced home monitoring in different ways. While most had decided themselves to buy a blood pressure monitor, others were advised by their GP practice. They mainly monitored their blood pressure because of one or more health conditions but also because they wanted to ‘keep an eye on things, and to look after their health.

Generally, most were in favour of home monitoring and understood how to take their own blood pressure and submit it to their GP practice. However, some people with a disability or mobility problems found it difficult or impossible and would require support to participate in remote BP monitoring programmes. A few people said they would prefer a health professional to take their blood pressure.

People also told us they would like to have information about blood pressure monitoring and more options for submitting BP readings. They also want more

frequent communication and feedback from their GP practice after they send blood pressure readings. This will help them be more informed and feel reassured that their blood pressure is being monitored and reviewed at the GP practice. They might also feel more involved in their health care and more likely to remain engaged in home blood pressure monitoring programmes.

Although we tried to reach diverse communities and groups by promoting and sharing our survey through GP practices and Patient Participation Groups (PPGs), community newsletters, and social media, participation was low from certain groups. For example, we did not hear from many people from black and ethnic minority communities, less wealthy groups, those with poor access to digital devices or broadband internet, and people who are unable or choose not to use them. Therefore, our results do not reflect the views and experiences of these communities and groups.

Further research is required to understand whether people from these communities and groups who would benefit from home monitoring are being given equal access to monitors and support.

6 References

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7 Appendices

7.1 Appendix 1. Additional respondent demographic information

Survey participants: 159

Note that in categories where more than one answer is possible, percentages total more than 100%

Table 5. What age group are you in?

	Oxfordshire		Buckinghamshire	
	Number	%	Number	%
Age group				
24 or under	0	0%	0	0
25 to 49	2	0%	9	15%
50 to 64	26	26%	19	32%
65 to 79	62	63%	28	47%
80 or over	9	9%	4	7%
Total	99	100%	60	100%

Table 6. What is your gender identity?

	Oxfordshire		Buckinghamshire	
	Number	%	Number	%
Gender				
Woman	63	66%	35	59%
Man	31	32%	24	41%
Non-binary	0	0%	0	0%
Intersex	0	0%	0	0%
Prefer not to say	2	2%	0	0%
Prefer to self-describe	96	100%	59	100%
Total	99	100%	60	100%

Table 7. What is your sexual orientation?

	Oxfordshire		Buckinghamshire	
	Number	%	Number	%
Sexual orientation				
Asexual	2	2%	3	5%
Bisexual	3	3%	0	0%
Gay man	0	0%	0	0%
Heterosexual/Straight	78	80%	54	93%
Lesbian/Gay woman	2	2%	0	0%
Pansexual	1	1%	0	0%
Prefer not to say	11	11%	1	2%
Total	97	100%	58	100%

Table 8. How would you describe your ethnic group?*

	Oxfordshire		Buckinghamshire	
	Number	%	Number	%
Ethnic group				
Asian/Asian British: Indian	2	2%	0	0%
Multiple ethnic group: Caribbean and Indian	1	1%	0	0%
White: British/English/Nth Irish/Scottish/Welsh	86	87%	55	92%
White: Irish	2	2%	1	2%
White: Any other white background	5	5%	3	5%
Prefer not to say	3	3%	1	2%
Total	99	100%	60	100%

*Note: only categories with one or more response are included in the table

Table 9. Do you have any of the following long-term conditions?*

	Oxfordshire		Buckinghamshire	
	Number	%	Number	%
No, I don't have a long-term condition	18	10%	13	15%
Hypertension (high blood pressure)	55	32%	29	33%
Asthma, COPD or respiratory condition	14	8%	6	7%
Blindness or severe visual impairment	1	1%	0	0%
Cancer	7	4%	0	0%
Cardiovascular condition (including stroke)	13	8%	6	7%
Chronic kidney disease	2	1%	2	2%
Deafness or severe hearing impairment	8	5%	1	1%
Diabetes	12	7%	9	10%
Learning disability	0	0%	1	1%
Mental health condition	8	5%	6	7%
Musculoskeletal condition	14	8%	6	7%
Prefer not to say	2	1%	1	1%
Not known	0	0%	2	2%
Other	18	10%	7	8%
Total	172	100%	89	100%

*Note: more than one condition is possible, therefore, the total number of responses is greater than the number of respondents.

Of the six people who were interviewed in depth:

- Four identified as women and two as men
- Two were aged between 50 and 64 years and four were aged between 65 and 79 years
- Five identified as white British and one as Caribbean Indian
- Two people were in the highest financial category, two in the second, one in the third, and one was in the lowest
- Four were advised by their GP practice to buy a BP monitor, and two decided themselves to buy one.

7.2 Appendix 2. Additional data tables

Table 10. Description of respondent’s self-reported financial situation

Financial situation	Number	%
I have more than enough money for basic necessities, and a lot spare that I can save or spend on extras or leisure	39	25%
I have more than enough money for basic necessities, and a little spare that I can save or spend on extras or leisure	58	37%
I have just enough money for basic necessities and little else	22	14%
I don’t have enough money for basic necessities and sometimes or often run out of money	1	1%
Prefer not to say	36	23%
Total	156	100%

Table 11. Access to digital devices and internet (158 responses)*

Device or internet	Number	%
<i>Digital devices</i>		
Personal/work computer (desktop/laptop)	140	87%
Tablet (e.g. iPad or similar)	109	69%
Smartphone	137	87%
Basic phone	38	24%
<i>Internet access</i>		
Broadband at home	157	99%
Broadband at work	21	13%
A mobile digital device (smartphone, tablet etc.) with SIM card	59	37%
No access to the internet	0	0%

*Note that more than one response is possible, the total number of responses is greater than the number of respondents.

Table 12. Confidence using digital technology (158 responses)

Confidence	Agree completely	Agree slightly	Neither agree nor disagree	Disagree slightly	Disagree completely	Total
Apps for daily tasks (e.g. banking, booking travel)	75%	15%	3%	3%	4%	100%
Online search tools (e.g. Google)	87%	9%	2%	2%	0%	100%
Communicating using email, WhatsApp, text	91%	8%	1%	0%	0%	100%
Online video communication such as Facetime, Zoom	65%	18%	6%	3%	8%	100%