Evaluation of the BP@Home initiative across south east and south west London

healthinnovationnetwork.com/clinical-themes/cardiovascular/

January 2023

Health Innovation Network South London

Acknowledgements

This evaluation was conducted by the Health Innovation Network (the Academic Health Science Network for south London) on behalf of South East London ICS and South West London ICS. The evaluation would not have been possible without the input of staff delivering BP@Home and patients taking part.

Contents

1. Executive summary

1.1. Overview

During the Covid 19 pandemic, blood pressure monitoring within primary care decreased. Remote blood pressure monitoring was identified as a priority for cardiovascular disease (CVD) management to ensure that patients could manage their hypertension remotely without the need to see a GP in person. As a result, NHS England (NHSE) initiated BP@Home, supplying monitors for home use. The programme aimed to support a shift in care delivery, empower patients to manage their own health, and reduce inequalities and mortality.

BP@Home was launched nationally in late 2020. In 2021 it was offered out across south east and south west London by the ICSs, to provide monitors for patients to use at home. Patients submitted readings to their GP practice to enable treatment to be optimised, and patients to increase self-management.

South East and South West London Integrated Care Systems (ICSs) commissioned the Health Innovation Network to undertake an evaluation during 2022 of the BP@Home initiative. The aims of the evaluation were to:

1. Explore staff experience and acceptability of BP@Home.
2. Understand the impact of BP@Home for practices and PCNs.
3. Explore the experience of BP@Home for patients.
4. Assess what is working well in delivery, for whom is it working well, and why.
5. Understand challenges and learning from delivery.
6. Explore how delivery could improve in the future.

This report describes the findings from data collected between August and November 2022. The project team conducted individual interviews with two strategic leads from South East and South West London ICSs and 11 members of staff working in primary care settings to gain an understanding of staff experiences. In order to examine patient perspectives, eight patients were also interviewed. Staff and patient surveys were circulated online, with 20 staff and 27 patient responses.

1.2. Key findings

Overall staff interview and survey participants conveyed a clear understanding of BP@Home. They described the positive aspects for themselves and other staff across several themes including BP@Home having the potential to alleviate pressure on GP practices and staff, in particular clinical staff, and helping to put into place systems to enable easier checking of blood pressure remotely. Challenges impacting on staff experience primarily centred around co-ordination and management of logistics for both ICS and practice staff, a lack of monitors and of larger size arm cuffs, and additional pressures placed on administrative staff in implementing BP@Home.

In understanding what the impact of BP@Home was for practices and PCNs, including what worked well and what challenges were, key themes centred around resourcing for delivery, and in particular, impact of administrative time. Many practices described challenges with keeping track of monitors, with lack of coding being a key issue. Ways of identifying patients varied, using different searches and methods for contacting and onboarding patients. Managing submission of readings by patients was another difficulty for staff. This was primarily done via text and text platforms – however digital exclusion or lack of online systems meant some patients provided readings in other ways.

Understanding the experience and impact of BP@Home for patients came through interviews with both staff and patients. Overall, patients described being satisfied with the programme and found it to be beneficial. Most staff also perceived high levels of patient satisfaction and benefit. For patients who took part, staff described it as an excellent tool for engagement. Additionally some staff found it was useful in making the diagnosis of hypertension. Patients described it being a useful tool for understanding their blood pressure and working with their health care providers – however most would have liked additional communication after submitting readings, in particular on what the readings meant and what, if any, actions were needed.

1.3. Conclusion

BP@Home and remote monitoring of blood pressure provides an alternative for regular, longer-term monitoring. Whilst BP@Home has the potential to alleviate pressure on GP practices, significate challenges in delivery mean that many staff delivering the project found that pressures increased at least initially, in particular for administrative and project management staff.

BP@Home has the potential to impact positively on patients and their health. Feedback from those interviewed was largely positive and staff reported high satisfaction amongst patients taking part, but it was difficult to ascertain impact for patients. Patients found it was a good way to help monitor their blood pressure and self-manage, and staff found it a helpful way to engage with some patients.

Addressing some of the key challenges raised by staff and patients has the potential to increase deliverability of BP@Home, reducing the impact on staff and increasing benefit. BP@Home is a useful tool for managing hypertension in some patients and should be integrated into hypertension pathways for use where appropriate.

1.4. Recommendations

Three areas of recommendations are considered to aid future delivery of BP@Home. Key recommendations include:

Set up and design

1. In addition to sending monitors to general practices, more comprehensive implementation resourcing is required. This should include clear procurement and distribution processes for the monitors that minimise staff time, additional nationally available guidance, resources, and templates such as text messages for use with patients, and ideal follow-up pathways that are readily circulated for use in primary care.
2. Ensure there is allocation of staffing resources alongside devices, with clear leads in each area. Staff at ICS, PCN and practice level have many competing priorities – thus delivery needs to ensure that staff are able to manage this for effective delivery.
3. Ensure procedures are in place for procurement and delivery of monitors. Alternative mechanisms for getting monitors to patients would improve delivery – such as supplying monitors on prescription and using pharmacies and hubs for dissemination of monitors.
4. A wide range of cuff sizes need to be available to ensure all patients can benefit from the service.
5. Ensure adequate codes for the complete pathway of remote monitoring are in place and widely disseminated alongside tailored searches, to enable tracking of monitors and delivery as well as patient impact.

Patient engagement

6. Use co-production to both map pathways and design ones that meet patient need. This is crucial for all stages of the project, from identifying patients and initial contact through to setting expectations around the number of readings required, putting in place mechanisms for returning readings, and designing follow-up processes. Involve a range of patients and staff in co-producing processes, to ensure widest access possible to BP@Home.
7. Enable ways for patients who are currently offline or may otherwise find home monitoring difficult to take part, to mitigate against exclusion including digital exclusion. Clear induction to home monitoring, ongoing support, and mechanisms for returning blood pressure readings in person or by phone can widen the groups of patients able to take part.
8. Ensure follow up with patients to help them understand their readings, and reassurance if they are normal, thereby supporting improved self-management. Where patients drop off follow up is needed to ensure that patients with high blood pressure are not being missed.

Delivery

9. Continue to provide mechanisms for sharing learning and good practice between PCNs and GP practices, and more widely across the country to increase sharing of best practice.
10. Ensure continued support for delivery of BP@Home. The roll out of the National Blood Pressure Optimisation Programme across England offers a mechanism for supporting areas as they continue delivery.
11. Invest in training for the wider practice staff teams to ensure more staff can help with running searches and delivery of blood pressure projects.

Full recommendations are in section 6 of this evaluation.

2. Background

2.1. Overview of the innovation

During the Covid 19 pandemic monitoring and treatment of blood pressure (BP) dropped substantially – with 93,806,471 fewer patients with BP treated to target or BP not recorded across south London.1,2 Home blood pressure monitoring was identified as a priority for cardiovascular disease (CVD) management, to encourage patients to manage their hypertension remotely, lessening the need to see a GP in person.

As a result, NHS England (NHSE) initiated BP@Home, supplying monitors for home use. The programme was aimed at reducing inequalities and mortality, supporting shifts in ways of delivering care, and empowering patients to manage their own health. The programme aimed to support a shift in care delivery, empower patients to manage their own health, and reduce inequalities and mortality. BP@Home was one of a range of initiatives developed by NHS@home to provide care in peoples' homes. Over 220,000 monitors were distributed across England, with over 12,000 distributed to south London between June 2021 and November 2022.

Procurement

Initially three pilot sites were chosen to deliver BP@Home in south east London - in Lambeth, Lewisham, and Greenwich. Following this, Primary Care Networks (PCNs) across both south east and south west London were invited to sign up via an Expression of Interest (EOI) in the late spring/summer of 2021. Monitors were then due to be distributed by NHSE to the ICSs to then distribute onto PCNs. GP practices would then be given these to loan or gift to patients, who would submit readings back.

The project was rolled out nationally supplying the monitors, with no additional funding available for resourcing the staffing needed to manage the practicalities or delivery. Steering groups were set up in both south east and south west London to support project development and delivery.

Within south west London 28 PCNs, and an additional 11 individual practices signed up, out of a total of 39 PCNs in this patch. They received over 6000 monitors from NHSE, distributed to the ICS to give to PCNs and GP Practices.

Within south east London 18 PCNs signed up to take part and were due to receive over 6300 monitors. However, an error meant no monitors were allocated to south east London ICS and instead given to other ICSs at a time when monitors were difficult to procure due to Covid 19. This resulted in severe delays – with procurement and delivery having to be done by the ICS and supporting partners. As a result the final order, alongside an additional allocation using additional funds from NHSE for further monitors with large and extra-large cuffs, was delivered in November 2022, over a year late.

Implementation

PCNs and GP practices had complete autonomy regarding implementation of BP@Home, including which patients were of greatest need and would be targeted. This led to a wide variety of delivery models across practices. PCNs were advised to use the UCLP Frameworks and searches or other EMIS searches to identify patients most at risk from hypertension. GP practices and PCNs shared learning and could get support through drop-in session in south west London run by the ICS, and a Community of Practice within south east London organised by the Health

[1] UCLP, Size of the Prize for south east London UCLPartners Proactive Care Framework: Atrial Fibrillation – managing AF and cardiovascular risk (pcdn.co), found at Size of the Prize for high blood pressure (uclpartners.com)
[2] UCLP, Size of the Prize for south west London UCLPartners Proactive Care Framework: Atrial Fibrillation – managing AF and cardiovascular risk (pcdn.co), found at Size of the Prize for high blood pressure (uclpartners.com)

Innovation Network.

Recruitment strategies varied between practices. Once patient lists had been identified, the majority of practices approached patients via text messages to invite them to take part. Other practices targeted patients via telephone and others enrolled patients in person, during routine appointments. Once patients opted in, they could either pick up a monitor at the GP practice or in some areas at central pick-up points. In order to provide readings to healthcare staff, patients were instructed to submit readings using differing methods. For example, some practices adopted the use of platforms such as Doctorly or Accurx which is driven by text-messaging communication. Other practices collected readings by phone, and some patients provided their readings to the practice on paper or gave these directly to a healthcare practitioner at their next appointment.

Some practices described creating leaflets and information materials for patients which included details on how to use a BP monitor, how to submit their readings, logs for recording readings, when and how to escalate an issue related to the monitor or their BP readings, and information on hypertension. Others supplied information by text or in person.

GP practices and PCNs reported that over 2967 patients had been enrolled in BP@Home across the two areas, and delivery continues across south London with practices continuing to loan or give out monitors. In addition the systems devised for BP@Home have been used with patients who have their own monitors as home – and whilst this falls outside of the original BP@Home scope, it was implemented by some practices to engage more patients for home monitoring.

2.2. Evaluation purpose and design

2.2.1. Purpose

The Health Innovation Network was commissioned by South East and South West London ICSs to evaluate BP@Home within their areas.

The aim of the evaluation is to understand how, and how well BP@Home has worked as a programme, what the impact has been, and who it is working for. Specifically, the evaluation was designed to explore the following objectives:

1. Explore staff experience and acceptability of BP@Home.
2. Understand the impact of BP@Home for practices and PCNs.
3. Explore the experience of BP@Home for patients.
4. Assess what is working well in delivery, for whom is it working well, and why.
5. Understand challenges and learning from delivery.
6. Explore how delivery could improve in the future.

2.2.2. Scope

This is a formative / process evaluation. The focus is on qualitative learning and how this could be used to inform future delivery, including for future remote monitoring projects and delivering these at scale, and learning around automation.

2.2.3. Design

In order to address the evaluation objectives, qualitative data were collected through staff, patient, and stakeholder interviews. The data were collected through 11 one-to-one staff interviews held between September and November 2022; eight one-to-one patient interviews held between October and November 2022; and two stakeholder interviews with ICS leads for long term conditions.

Interviews were held using MS Teams or by telephone, and were audio recorded with automated transcription. The data were analysed using a thematic analysis approach, aided by a framework analysis. An analysis framework was developed to capture information from the raw interview data and aid the development of themes. The framework was reviewed by the entire project team and key themes and learnings were identified. These were then used to evaluate against the objectives and develop recommendations for future implementation. Quotes within the findings section have been paraphrased for clarity where needed.

Survey data was collected through staff and patient surveys. 20 members of staff and 27 patients responded to the surveys between August and November 2022. Surveys were developed by the Health Innovation Network and hosted online. Surveys were circulated to staff involved in the project for completion, and for staff to circulate to patients who had taken part in BP@Home. Due to the small number of responses, these have been used primarily to validate interview findings.

Figures on patients engaging with BP@Home came from data collected by the Health Innovation Network on delivery in south east and south west London since project start through to August 2022. This was requested in July 2022 as part of data collection for the pan London evaluation of BP@Home by Imperial College London. Staff were asked how many monitors they had received, how many they had given out at least once, and the number of patients enrolled in BP@Home. 20 responses were received covering PCNs and GP practices in south east and south west London, including some which came back post the collection by Imperial College which have been included in the figure for this evaluation.

Table 1 Evaluation Frameworkoutlines the evaluation framework which describes the evaluation objectives, measures, and data sources. This was developed in consultation with the commissioning ICSs. Findings from each objective are included in the findings section, with objectives four and five being addressed throughout the subsections. Objective seven was not specifically addressed by interview participants but is formed by the recommendations.

Table 1 Evaluation Framework

Evaluation Objective	Measure(s) / metrics	Data source / methods of collection
1. Explore staff experience and acceptability of BP@Home programme.	• Staff experience and perceptions	Survey with practice staff Interviews with practice staff
2. Understand the impact of BP@Home for practices and PCN's.	• Understanding of the processes for practices / PCN's, and staff experiences of these	Survey with practice staff Interviews with practice staff Interviews with ICS leads involved in BP@Home

3. Explore the experience of BP@Home for patients.	• Patient experience of BP@Home – both those taking part, and if possible, those who declined (*Note this was explored in depth in a Lewisham pilot evaluation of BP@Home however with a small number of patients)*	Online patient questionnaire 1:1 patient interviews Data collection via GP practices
4. Assess what is working well in delivery, for whom is it working well, and why.	• Staff experience and perceptions • Patient experience	Survey with practice staff Interviews with practice staff Interviews with ICS leads involved in BP@Home Online patient questionnaire 1:1 patient interviews Data collection via GP practices
5. Understand challenges and learning from delivery.	• Staff experience and perceptions • Patient experience	Survey with practice staff Interviews with practice staff Interviews with ICS leads involved in BP@Home Online patient questionnaire 1:1 patient interviews Data collection via GP practices
6. Explore how delivery could improve in the future.	• Staff experience and perceptions • Patient experience	Survey with practice staff Interviews with practice staff Interviews with ICS leads involved in BP@Home Online patient questionnaire 1:1 patient interviews Data collection via GP practices
7. Understand if the learning from BP@Home can be used in delivery of other hypertension and remote monitoring work - spread.	• Data from Objectives 1 - 4	Survey with practice staff Interviews with practice staff Interviews with ICS leads involved in BP@Home Online patient questionnaire 1:1 patient interviews Data collection via GP practices

3. Findings

The findings from the interviews are structured in line with the evaluation objectives listed above in Table 1.

3.1. Exploring Objectives 1, 4 and 5

Overall interview and survey participants conveyed a clear understanding of BP@Home. They described the positive aspects for themselves and other staff across several themes including BP@Home having the potential to alleviate pressure on GP practices and staff, in particular clinical staff, and helping to put into place systems to enable easier checking blood pressure such as remotely providing readings. Challenges impacting on staff experience primarily centred around co-ordination and management of logistics for both ICS and practice staff, a lack of monitors and of larger size cuffs, and additional pressures placed on administrative staff in implementing BP@Home.

3.1.1. Understanding of BP@Home

Many participants conveyed an understanding and rationale for BP@Home and of how it had been rolled out within PCNs. They described how colleagues from PCNs and ICS leads were responsible for the initial launch of communication surrounding BP@Home and information was then disseminated at local level to GP practices to begin implementation and where relevant procurement processes.

"There was a recognition within primary care that it was something worth doing." (Staff)

Rationale for taking part in BP@Home primarily consisted of a high prevalence of hypertension in the local catchment areas, poor management of hypertension in the community (poor compliance, patient education, engagement with healthcare), and emphasis on self-management as a priority due to COVID.

"They wanted to implement a population health approach where they are targeting patients from ethnic minority groups to make sure they have accessible and equitable care. So I guess one of the reasons why they wanted to do BP@Home is to ensure that this community also has access to monitor their hypertension at home. This population is less likely to engage in healthcare sometimes, or are more likely to be from lower socioeconomic backgrounds." (Staff)

"The main reason was that we were well aware that BP was something we needed from patients, particularly after COVID and the fact that we hadn't seen a lot of patients for a long time. BP can tell you so much about the patient, we were well aware that if we could collect this data without inviting the patients in, that would be a win for us to get that data and act on it in a far more streamlined way." (Staff)

As time passed communication about BP@Home appeared to have lessened within practices and PCNs. Staff joined practices and used the monitors with patients but may not have been aware that this was an initiative, reporting instead of finding monitors at the practice.

"To be honest, I didn't know it was a project, I didn't know any of that." (Staff)

"The practice managers didn't understand why they were receiving BP monitors and what they were supposed to do with them." (Staff)

3.1.2. Perceived benefits for staff

All staff interviewed welcomed the project initiative within their workplace.

"It really harnesses what the NHS should be about, actually improving health and helping those that perhaps have a hesitancy to engage or aren't informed about all the kinds of benefits that they can receive." (Staff)

"I enjoy giving them [monitors] out and would like to continue." (Staff)

"We're looking at the long-term gain of it really. Ultimately, we're on the side of the project." (Staff)

Some participants felt the project had the potential to reduce pressure on GP practices, saving time with regard to patient appointments. 18 out of 20 survey staff respondents strongly or somewhat agreed that BP@Home helps to reduce the number of follow-up appointments for patients with CVD conditions, with two unsure / not applicable.

Whilst instigating the project did take time, one noted that having one person doing this helped make the process simple and efficient. Within the survey, respondents replied that the project mostly saved clinical time or had no impact compared to in person reading, however the impact on admin time was more mixed.

"It's been easy because I get to call the patients in, and I give them the monitors and then I read the readings, I think it's easier because I do it from scratch." (Staff)

"It helps the practice reduce the number of appointments." (Staff)

For most staff BP@Home required them to put in place new procedures to enable them to recruit patients and receive readings. One staff reflected that the project had provided a generally smooth vehicle through which patients can submit, and surgery can then act upon, BP readings, which reduces in-person consultation time.

"We've already saved a lot of time, a lot of decision making, which can happen a lot quicker and the process can be a bit smoother'" (Staff)

One respondent felt that the programme was well implemented and that they felt clear about how to take it forwards. Support in the form of a step-by-step document they were provided with was helpful, and the respondent felt that this was a factor in the programme being well managed.

"We had a document which gave us a step-by-step guide on how we were going to implement the programme here, and how we're going to get people to the appointments, get the right people to the surgery and give out lifestyle advice. And also, obviously how to put the blood pressure monitor on and get the most accurate readings, as well as giving them out and then getting those readings back from them as well" (Staff)

Others felt that the systems put in place for communication helped their work in getting information to patients and receive the readings back, and also that it helped with engagement with patients. This often allowed texting of patients for remote engagement, and ways for patients to submit information back to the practice.

"Those patients are in our system now, and they are coded as part of the project." (Staff)

"Got to see patients who have not been seen in a while." (Staff)

One staff member reflected that it allowed for more flexible working which could benefit staff.

"[It allows for] more asynchronous conversation [which] really helps the clinicians to fit in their lives as well." (Staff)

3.1.3. Challenges for staff

The main challenges for staff related to general co-ordination and management of BP@Home, and for some, frustration over delays in the delivery of monitors. Communication with patients and tracking of monitors was also an issue that created a difficulty. Resourcing and ownership of the project were also raised as needing attention in order to progress the project going forward.

Co-ordination and management of procurement and logistics

Challenges with co-ordination in management were a factor for ICS staff involved in the project, as well as for PCN and practice staff. Issues around procurement and delivery caused substantial challenges for the ICS staff who were managing this, often with very limited capacity. Clear procedures around procurement and delivery logistics were not ensured before delivering devices to the ICSs. ICS staff and other organisations who stepped in to help support them worked hard to fill this gap to make the project possible. They reported taking deliveries into their homes and driving around the area to deliver them.

"I mean for the first couple of pilots, I think [name] actually took some in his car to [the practices]. We were in the middle of COVID. No one was in the office. We didn't have a courier." (Staff)

"There were 600 monitors delivered to my boss' house and she stored them basically for a period of months." (Staff)

Within south west London they were eventually able to organise for further deliveries from NHSE to go to a local hospital who stored them, and the ICS would arrange delivery to PCN's to then deliver to practices. However, large amounts of time were then taken up by the ICS to organise deliveries.

"At this point, we're going this is crazy. We can't organize the logistics, running taxis and delivery things from one place to another. The national team agreed that they would then organise the delivery." (Staff)

One participant described the impact of an error within NHSE which meant that monitors requested by the ICS were not allocated to the area. This has entailed a large amount of work by the ICS and partner organisations who helped out with this.

"It was that a huge amount of work was being created unnecessarily…then they gave us funding directly and said you just go and procure your own because we can't do it for you. And that was a colossal challenge that has gone on for months." (Staff)

"The other thing is when you try and quantify the amount of time that I've spent on this project, the majority is trying to fix the procurement problem…I've only got a limited amount of time and so I have had less bandwidth to actually think about the good things that we want to do because too much of my time has been trying to fix the procurement issue." (Staff)

Once delivered, practices faced challenges around the storage of monitors as not all had space for storing large numbers, potentially receiving hundreds in one delivery.

Lack of monitors and lack of larger size cuffs

Staff from south east London practices described that the problems with procurement caused delays to the project due to the unknowns around delivery timelines. Across south London the small numbers of devices compared to the number of patients meant they had to find ways to prioritise patients.

"I was only given 40 monitors, so that was just 40 patients but our list of patients is much more extensive. So we haven't reached out to patients that we potentially can." (Staff)

Survey respondents were split between having the right number of monitors or not enough, with a smaller portion not sure or one saying they had too many. Additional respondents were unsure as they hadn't yet received the full allocation. One respondent found that the main barrier for taking the monitor itself was simply that the patients already had one –

"to distribute 20 monitors, 150 patients were called because many patients already had their own monitors" (Staff)

Some staff reflected on the lack of larger cuff sizes initially available due to a national shortage at the time, which meant some patients who wanted a monitor weren't able to take part.

"Patients are complaining it is discrimination against those [who are] overweight." (Staff)

"I find this a little bit surprising, when you know how obesity is such a big problem in this country, I don't know why it wasn't thought through." (Staff)

Additional pressure on GP Practices

Whilst some staff felt BP@Home had potential to alleviate pressure, others found it took too much time and was overwhelming on top of other duties in particular at times when Covid-19 vaccines were being rolled out. This was particularly true with regard to the administrative aspect of the project.

"It would have been nice to have two of me." (Staff)

"One of the biggest challenges actually was workforce and capacity and because the care coordinators ended up taking on more roles and helping out with other activities." (Staff)

3.2. Exploring Objectives 2, 4, 5 and 6

In understanding what the impact of BP@Home was for practices and PCNs, including what worked well and what the challenges were, key themes emerged. Central to these was around resourcing for delivery, and in particular the impact of administrative time. The need for further resources to support delivery were a common theme in interviews. Ways of identifying patients varied, using different searches and methods for contacting and onboarding patients.

Many practices described challenges with keeping track of monitors. Managing submission of readings by patients was another difficulty for staff. This was primarily done via texts and text platforms – however digital exclusion meant some patients provided readings in other ways.

For patients who took part in BP@Home staff described it as an excellent tool for engagement, and additionally some found it was useful in the diagnosis of hypertension. However assessing if BP@Home met its key aims was unclear for some including ICS staff.

"Not really, because I'm just not sure that the cultural change that was needed within general practice was facilitated. It [the project as a whole] was very here's the kit, get it out, that kind of thing." (Staff)

Resourcing for delivery

Staff views on the impact on workload were mixed. The time spent on administering was raised in interviews and the staff survey.

"It was very admin heavy, all care coordinators in the PCN found it extremely time consuming." (Staff)

One aspect of this for many staff across practices discussed was spending time creating patient materials on using monitors, blood pressure, and how to submit readings. They also spent time writing text messages to send out, and on understanding coding. South west London ICS staff produced a resource pack for practices to use.

"...Our transformation leads in the boroughs have said you might want to put a pack of resources together to support practices...and we did. We did searches and a whole range of different things, letters, templates." (Staff)

"I can remember a few practice managers or care coordinators would obviously been kind of told this is what you're going to do. And then they get hold of my e-mail and it's like I'm a bit overwhelmed. Can you tell me where to start? ....so just putting a little kind of checklist." (Staff)

Within south east London there was sharing of resources including suitable codes and templates that practices created. However many staff reported creating their own resources as others didn't work for them or they weren't aware of those shared within their areas as they joined the project later.

"I rewrote the onboarding instructions and protocol – what was provided wouldn't have worked for us." (Staff)

One practice gave patients an equipment loan leaflet, and a diary to note down their readings.

"The diary had dates and times, and any notes on how they felt when they took a BP. It also provided information guidelines on what the readings mean so they were aware of when it's OK and when we might need to be concerned and take quicker action." (Staff)

Some staff reported other resources that were helpful. One respondent used materials from the British Hypertension Society that included a table to enter readings into.

"The British Hypertension Society have a home blood pressure monitoring chart. So it explains to the patient how to do it. It explains what to do, and you can write on it." (Staff)

Whilst the autonomy around BP@Home enabled practices to deliver the service in the way that worked for them, one member of staff reflected they would have benefited from a more cohesive approach.

"I think there should be a lead for this service, pushing it and making sure that its going, and making sure the surgeries are doing that at the same pace." (Staff)

One PCN did deliver this cohesive approach which supported staff.

"The first thing to do was to write out the process map of how we think it could be operationalized. Once we had that we went to present that to the executive management team to get their support, which included the clinical directors of the PCN as well as the clinical leads in different domains." (Staff)

The management teams then disseminated this to individual GPs and onboarded staff. They identified an Additional Roles Reimbursement Scheme (ARRS) cohort of care coordinators to take ownership and drive coordination of project across sites. Care co-ordinators formed a WhatsApp group and had monthly meetings alongside clinical leads and practice managers to discuss project progress, challenges and ways forward. Care co-ordinators also received 'train the trainer' sessions from a clinical pharmacist on what hypertension is and how it is monitored, and were given materials to use with patients. However staff turnover and other conflicting demands meant that even with systems and training in place, delivery was challenging.

Identifying patients

Identifying patients was a key challenge for most practices, and one that took up a good deal of time.

One staff survey respondent noted the difficulty of *"trying to find the patients on top of the increased work that primary care has to do."*

It was suggested that practices use UCLP searches to identify patients, or alternatively other EMIS searches. UCLP searches stratify patients based upon blood pressure readings and other risk factors, categorising them into Priority Groups 1 – 4, with Priority Group 1 being at highest risk. Alternatively, some staff reported that they wrote their own EMIS searches to identify patients at high risk, including targeting patients who were from black and minority ethnic backgrounds with high readings, who didn't have up to date readings, or who had other conditions such as diabetes.

"We got our data team to run a search to identify eligible patients that are hypertensive…. To start with we picked patients that were of African or Caribbean ethnicity and had a BP over 140/90." (Staff)

One staff survey respondent noted that what worked well was the *"Availability of excellent resources to support clinical and non-clinical staff from UCLPartners."*

Risk stratification was a new approach for many practices at the time. Some practices chose to target patients at the highest risk but found that some patients in this group were difficult to bring into the project.

"That created a bit of a blip for the people that were trying to onboard patients, they couldn't get hold of them and it

was just demotivating for staff and it wasn't making any difference to patients because you couldn't get hold of them. So they adjusted their approach. They realized that's what was happening in the practices that were doing it well. They realized…we should be looking at those that we can relate to. They might be a lower priority, but at least you will be supporting them." (Staff)

Other practices took a mixed approach combining searches with giving monitors to patients who were seen in person and had high readings. For others, it was more opportunistic. If hypertension came up in a telephone conversation or via an EMIS notification that a patient had a high reading, they would offer a monitor to test at home.

One area initially delivered the project at a PCN level which caused challenges around data and identifying patients.

"[There were] issues with Doctaly integrating with EMIS…there currently exists no automated migration of data. It's been a huge issue. It means that we don't have the patient records because we're not their practice. We need to have a special type of EMIS integration to code into the practice, which Doctaly doesn't have. We've had to manually code all the patients." (Staff)

Contacting and onboarding patients

Staff described a great deal of time being spent contacting patients to invite them to join the project. When inviting patients, some phoned patients whilst others relied solely on texts. Once patients agreed to take part, methods for onboarding of patients to collect monitors and understand how to take and submit readings varied and with this, the time it took. Commonly patients were called in for a one-to-one induction. Others used only remote communication, with patients picking up monitors at the GP surgery or collection points and then either texted information or instructed to download Doctaly for an assessment.

"I would see them; I would show them how to use the machine and some of them had never used the machine. So just making sure that they were comfortable using the machine was the first thing." (Staff)

Some described having to contact large numbers of patients to find those that wanted to take part.

"We tried ringing up people to see if they would be interested and it was very hard to engage them…a lot of people were really not interested, it is fascinating trying to understand why people choose not to treat themselves." (Staff)

One staff participant explained that they texted large numbers of patients once, going in alphabetical order through the list. As they did not have a method for tracking monitors, they didn't follow up with patients but instead moved onto texting the next batch if more monitors were available. Patients picking up monitors were given instructions on how to submit readings remotely.

Monitors were either loaned or gifted, with survey responses split with eight staff responding they loaned monitors, eight gifting, and four saying they used a combination.

One patient noted they paid a deposit when they collected the monitor.

"I did pay a deposit and they gave me a receipt for it. And obviously when I took the monitor back, they gave me my money back." (Patient)

Submission of blood pressure readings

Practices varied in how many readings they asked for, and in how they requested them to be submitted. Some

practices used Doctaly to automate texting which worked well, in particular where this was already set up.

"Once the patient signed up to the Doctaly, they answer a series of questions. The robot will instruct the patient, please take your blood pressure, and then it will wait for five minutes and then ask them to do it again so that you get a series of three readings. The robot automatically triages according to high, low, and medium risk purely based on the numbers and then the completed assessment will go to a remote monitoring clinician…I then read through the readings…review their EMIS notes…if they look like they're above target persistently, we might suggest changes to the treatment, or if it's below, then deprescribing." (Staff)

For others, the process of receiving readings was manual, either through texts back, email, patients phoning in readings, posting them or delivering them handwritten to the practice which then had to be manually entered into patient records and followed up. One staff member also noted that some patients had a family member text in their readings for them.

"We do have an administrator that can call patients, so patients that don't understand or don't want to use WhatsApp can submit readings over the phone, and then she inputs them into the system." (Staff)

Another who had patients submit readings manually discussed that they were unaware until the end of the programme that patients could have submitted readings using Accurx. Another PCN used Doctaly but described how the process of manually entering the readings into patient records within EMIS proved a challenge.

"I don't think it's the most smooth because it's prone to human error and you know, there's several things that could go wrong. And then also, obviously it's just a bit repetitive." (Staff)

Coding and tracking of monitors

Coding of readings and of monitors was mentioned frequently, in particular as being time-consuming. Whilst a list of codes to use for recording blood pressure readings taken at home was provided part way through delivery, several staff noted that there weren't adequate codes for fully tracking monitors that were given out. At least one was not aware that any codes existed for delivery.

Some discussed that no one in the practice was keeping track of where the monitors went to, and that patients weren't coded either due to lack of systems or lack of awareness around what codes could be used. This also meant that in some instances they didn't know which patients to follow up with for readings or chase to collect a monitor. Some created logbooks for this purpose, however others noted that distribution hadn't been tracked, particularly where monitors could be picked up at various locations.

"We weren't given a code to say offered home blood pressure monitor, declined home blood pressure monitor or accepted blood pressure monitor. So, the loan book was our record of who had what and how many had gone out and how many had been brought back or not." (Staff)

"There isn't a great system of how to monitor it [loan of monitors]. It's not that patients want to steal them they just forget and are busy." (Staff)

For coding readings there were concerns over the lack of codes. Staff noted that home readings should be lower than those taken at a GP practice or hospital – however, coding and subsequent searches did not allow for differentiation. Some staff reported that they didn't have a way set alerts based on readings for patients with other comorbidities.

"Usually, the threshold is 140/90. Generally speaking, if they have diabetes, the threshold is 140/80. The threshold for home readings, though, is 5 less. So, at home it's 135/85 or 135/75 but EMIS won't pick that up that what you've put in is a home reading. So, you won't see the bottom right hand corner flash up as this reading is not at target." (Staff)

One staff survey respondent noted concern the lack of a range of codes and alerts for blood pressure. Whilst coding is based on existing codes within EMIS systems, and national targets rather than any new hypertension codes specifically for BP@Home, it reflected challenges related to the limitations within the existing systems.

"I have repeatedly highlighted that this project is taking a far too generic approach, using only two BP targets when in fact there are about 9 possible targets. One third of patients with hypertension have diabetes or CKD and this is not considered." (Staff)

Engagement and understanding of patients

Staff discussed that BP@Home was a good opportunity to get to know more about patients and engage with them in a different way around their hypertension.

"You get to know them, they get to know you, there is a bit more trust." (Staff)

'It does give the clinical staff a little bit more information about the patient." (Staff)

There was an initial concern that some patients would be unsatisfied not being seen in person.

"It relied a lot on the relationship the practices had with their patients…would they trust them? Would they use them? How could they convince them it was helpful for them, not just for the practice. I think a lot of patients felt that they were being fobbed off with a machine rather than being allowed into the practice to have a proper face to face discussion." (Staff)

However, for many staff the reverse seemed true. One respondent felt that that the loaning system conveyed an important message to them.

"It shows we actually care for them and we want to do something for them" (Staff)

Another felt that the major benefit of the programme was seeing patients that have not been to the surgery in years. They described patients as being *"happy to be remembered."*

Diagnosis of hypertension

Whilst the project was initially rolled out for monitoring of blood pressure in patients with diagnosed hypertension staff found them useful in diagnosing hypertension.

"There have been so many patients who came back with hypertension who thought they were healthy and have now realised with their monitoring that their blood pressure is high." (Staff)

One area requested a further 100 monitors that were distributed at a local fair.

"We ran a fair a community fair in our local park alongside some of our community voluntary providers….it was quite handy to do that, do the education piece, give them the leaflets on how to monitor." (Staff)

One patient described being pregnant and was found to have very high readings in a clinic visit. She was given a monitor to take readings twice a day and medication, and returned the next day to have treatment assessed. The monitor was then used for ongoing monitoring.

"It gave me peace, it was excellent having it at home. It would not have been possible for me to go in daily." (Patient)

3.3. Exploring Objective 3 and Objective 6

Understanding of the experience of BP@Home for patients and the impact for them came through both interviews with staff and patients. Overall patients described being satisfied with the programme and found it to be beneficial.

3.3.1. Satisfaction

Staff reported that most participants described high levels of satisfaction from patients enrolled in BP@Home which was also shown in the survey 18 out of 20 respondents saying they felt patients were satisfied with home blood pressure monitoring through BP@Home.

"I think they were really surprised about the care, and surprised that this was available to them. For those that I approached to offer a free one, they were very grateful that someone had contacted them." (Staff)

"Some people are actually still a bit anxious about coming into a GP practice, so having this is an option for them to do it at home." (Staff)

BP@Home worked well for patients who found it difficult or didn't want to come into the practice, or who *"can't afford to travel or take time out of their day."*

Most patients interviewed were satisfied with being offered a monitor and taking readings at home.

"I am curious and I like to know what is going on around me, and especially in my body. I was happy to know that I can measure it myself daily, look at the table and see what is happening and what is not happening and whatever. I was so happy, yes, so I jumped at it. So yes, because of my curiosity and the fact that I wanted to know how well or how badly I was doing as well." (Patient)

One patient described how they were originally given a 24-hour ambulatory blood pressure monitor which is worn for 24 hours straight, which did not work for them. *"I could not cope with it; I couldn't cope with the pain in my arm when it was pumping up. And I don't sleep that well so I knew that that wasn't going to work for me."* The respondent took it back to the nurse and then was given a monitor to take home instead which by contrast they found easy and worked well for them.

When asked *How likely are you to recommend BP@Home to friends or family who may be suitable for the service?* 18 staff said they were extremely or somewhat likely, with two neither likely nor unlikely. Amongst patients who answered the survey and who had received a monitor from their GP surgery, 60% said they would recommend home monitoring, 33% were unsure, and one person would not recommend it.

"I think the programme is good. I think the programme for people like me made us aware. I felt like I was in charge of my body at that time. So the programme was good and if they were to bring it out again every now and then, it would be good. I don't have any complaints." (Patient)

"Am very grateful for having the monitor at home." (Patient)

Improved care

Staff and patients described ways in which BP@Home enabled improved care for some patients taking part. One member of staff felt that patients involved in this scheme have been getting one-to-one support, and that patient care is being better managed as a result of the programme. *"If anything they were getting fast tracked."* Another noted that older patients especially appreciated the personalised calls from the respondent, and these gave patients the opportunity to also talk about their other health concerns.

"We can do more effective treatment, we can diagnose more quickly because a lot of people prefer it to a 24-hour blood pressure machine because they don't want it on all day or they can't get to the surgery." (Staff)

One staff member described how more anonymous interaction with a clinician can help patients open up about perceived embarrassing aspects of their health, lifestyle or condition, promoting patient wellbeing and enabling staff to provide more accurate and informed diagnosis and subsequent care pathways.

However one patient explained they felt *"it lacked the personal face to face touch with the clinician."*

Increased patient understanding and education

Staff reported that taking home readings increased understanding in patients, and enabled them to take control and better understand the readings. Most survey respondents responded it supports patients with CVD conditions to self-manage their condition, gain a greater understanding and ability to assess their own health.

"A lot of patients are now understanding the readings a lot more and are quick to pick up on high blood pressure." (Staff)

"They can see what makes their BP readings fluctuate." (Staff)

"This goes with the NHS' long-term plan which is to be more preventative and get people to self-manage their health so that they don't have to escalate it to secondary care." (Staff)

Ease for patients

Most patients reported finding the process of getting the monitor and submitting readings easy.

"I was given a leaflet, letter, and a table to fill in readings. There was a leaflet in the pack. And in the e-mail to me as well, the care coordinator said that if I have any questions or I have any problems I should just e-mail back to her." (Patient)

"[I] submitted morning and evening readings for a week…. I think I was one of the best. I didn't need prompting." (Patient)

"I printed out the table and filled in the tables manually. Then at the end of the week typed it up on the computer as a word document and then sent it on email." (Patient)

More accurate readings and diagnosis

A number of staff noted that taking blood pressure readings at home gave more accurate diagnosis as most patients were relaxed and thus they could get better readings. One noted that about two thirds to three quarters of patients with high readings at the GP ended up having normal readings at home and did not need to see the GP.

Another staff respondent observed that the lower home readings reduced the number of people that have been unnecessarily put on medication.

"Some people definitely have white coat hypertension, as soon as they see a clinician, their blood pressure goes up." (Staff)

However, it was also noted that *"some patients are nervous about doing it at home and like it to be checked by someone official." (Staff)*

Patients also shared that they had had a more accurate reading at home.

"Maybe I was stressed that day when I got down to the doctor's surgery and that's why my blood pressure was high... Being at home is a lot better than going down to the GP surgery, trying to get an appointment is a mission now." (Patient)

"Anytime I'm going to the doctors I panic. So I know it's affecting blood pressure because anytime they take my blood pressure it skyrockets high and then the GP will tell me you need to relax just relax... So having it at home was heaven because I could relax." (Patient)

3.3.2. Challenges for patients

Lack of communication

A key area of lower satisfaction for patients was around communication. Most patients interviewed said that they hadn't heard back from the GP or other health care professional about their readings other than acknowledging receipt.

"I never really received comments from my GP, until a time I had to go in with a problem and then my GP commented that my BP is ok and they will keep me on the same tablets... It would have been very nice and helpful to get back to me to say that you're doing well and there's no cause for alarm...I would preferably have liked my readings explained more to me. Sometimes my readings were higher and sometimes they were lower, I would have quite liked for someone to explain to me why this was happening." (Patient)

Whilst some understood not hearing back likely meant everything was okay, they would have liked a response.

"The process that the surgery runs is you do get a call from the doctor if anything is unusual, if not if everything is OK then you don't get a call back.... It's sort of how the NHS runs right now, even when you go for a test, you don't automatically hear back. So yeah, that could be improved absolutely." (Patient)

One interviewee disliked that whilst they got emails back thanking them for their readings and indicating that they would be sent to the GP, they never got feedback from their GP about the readings they submitted. This, combined with difficulties with the form and having been fed up with taking readings twice a day, meant they gave up being part of the project.

Barriers around equipment

Access to equipment and being able to use it appropriately were other barriers for patients, noted by both staff and patients.

"Being able to use the equipment and having a mobile phone, those are the main barriers." (Staff)

"It's a bit fiddly to do it yourself, so they need a second person, and especially if they live by themselves, it makes it hard to put the cuff on themselves." (Staff)

One patient noted they were given a monitor, but no instructions on how to use it. They had to ask a colleague to explain how to use the monitor.

A few staff described that for patients lacking confidence, there was hesitancy in submitting readings and that some patients reported feeling more comfortable under supervision of a healthcare professional when it concerned management of their condition. For these patients, in-clinic monitoring would be a preference.

Digital inclusion was an issue for some patients. As some practices or PCNs only invited patients via text message, some patients would have been excluded from taking part. Where offline or less digitally confident patients were able to join, some did not have smart phones or did not feel comfortable submitting readings remotely meaning that in order to join they needed to be able to provide them over the phone or in person.

"I think those people that have been submitting readings electronically have provided some really good data, however a lot couldn't do that and had to submit readings manually or over the phone." (Staff)

Drop off in participation

Staff frequently described drop offs in the numbers of readings received. Whilst some practices only requested initial readings, others asked for readings for an initial week and then again several months later.

"I did on board quite a lot of patients, and there were only a handful that were really on it and sending me what I needed." (Staff)

"Trying to get regular readings was a challenge. I think patients are quite forthcoming and excited when it initially starts, but six months down the line it can slip. So it's about still keeping them excited about their health and their management, that can be a struggle." (Staff)

Challenges in getting readings meant that some practices changed their approach. One initially asked for three readings over five days *"but would see a lot of drop off because patients would do it once and then they couldn't be bothered to do it"* so now patients are just asked for three readings in one day.

Another noted that they worked with only ten patients at a time in order to give personalised, one on one care. They would speak to each patient every week on the phone. Patients could text or give readings on the phone, and it was not until a patient had four weeks of good blood pressure readings that they were discharged, and respondent moved on to new patients from wating list.

One patient described how they disliked being required to take two readings in the morning and two at night.

"I think because I was getting a bit fed up of it in the end I didn't do as many as I should have done… I got bored of sitting at the table, sticking the thing on my arm." (Patient)

Impact on health

Impact on patients' blood pressure is outside the scope of this evaluation however some staff did discuss this, noting it was too early for them to know the impact this had on health. In addition lack of coding and difficulties with reporting mean that gathering this data is difficult. However general impacts were noted.

"I think because you are allowing them to take charge of their own health a bit more rather than totally relying on other people and some people really go for that. Others really don't and they're not prepared to change anything about their lifestyle at all." (Staff)

"They can see what makes their BP readings fluctuate." (Staff)

Patients found it helpful to see their readings.

"I am thinking of going to buy my own monitor because I need to keep a track of my blood pressure as two of my brothers in their 50s had heart attacks." (Patient)

"It does concern me a bit because I don't want my blood pressure to go sky high, because obviously it can cause strokes and things like that." (Patient)

'

4. Conclusions

"What it is the patient needs and how they can be encouraged to, to do things differently. That's a big shift…. I often use the BP@Home as an it kind of example of the shifts that we need to make with within primary care. You know from a face-to-face reactive illness-based model to a proactive self-management remote model. It's a big shift that needs to happen." (Staff)

This evaluation of delivery of BP@Home in south east and south west London was commissioned by the local ICSs. It looked to understand how, and how well, BP@Home has worked as a programme, what the impact has been, and who it is working for – i.e. practitioners, and / or patients.

All staff survey respondents agreed that BP@Home was a good way to support patients with CVD conditions, however had many challenges in delivering it. The project was rolled out nationally and rapidly due to response to Covid-19 – however this meant there was not a full understanding of mechanisms for distribution of the monitors locally or resourcing that was needed. This caused challenges at both ICS, PCN and practice level and was further exacerbated by levels of staff turnover as the project progressed.

Benefits for staff

Staff reported benefits, both for themselves and their practices. In particular these were around setting up of systems for contacting patients remotely and for patients to submit readings electronically – both of which can be used more widely. Additionally staff discussed being able to get to know more about patients through the monitoring and supporting patients to improve their health. Whilst there was potential for it to reduce pressure, views on this were split – with the views being that it seemed to largely reduce clinician time and increase administrative time.

Challenges for staff

Challenges were largely similar across practices. Delays in procurement, numbers of monitors, and a lack of large and extra-large cuffs were key issues for many staff. For the ICS staff these were mainly around resourcing involved in getting and delivering monitors. Systems for dealing with monitors including coding and tracking of devices were other key difficulties, whilst recruiting patients to the project and keeping them engaged, onboarding, and the submission of readings back to practices also featured as main challenges for many staff.

Patient satisfaction and benefit

Most patients interviewed reported BP@Home to be a good service for them, and staff reported high patient satisfaction. Having monitors at home provided opportunities for increased patient understanding of their blood pressure and what causes changes, and more accurate readings particularly in patients who tend to have high readings whilst with a clinician. Staff felt that the project enabled patients to receive good, personalised levels of care.

Challenges for patients

Whilst most patients interviewed described that remote monitoring was beneficial to managing their blood pressure, there were challenges. The main challenge that came up was around a lack of communication when they submitted readings which they felt was important. Some patients and staff also described how the number of blood pressure readings requested was too high to fully participate, which resulted in submitting fewer readings or dropping off all together. Other difficulties discussed were around using the equipment and digital exclusion which meant some patients were unable to take part.

BP@Home has potential to have a positive impact for patients and appears to have for some who were involved. It is one tool that may be helpful for some patients, in particular those who are comfortable with home monitoring and confident digitally. However more needs to be done to support practices including around mechanisms for contacting and engaging patients, systems for tracking monitors, and ways to integrate remote readings into patient records. Repeat initiatives need to provide support staff resource in addition to equipment and more detailed guidance and materials for those taking part to help reduce duplications of time across ICSs and PCNs. Further opportunities for sharing learning across regions would benefit those delivering as they seek to maximise the impact of BP@Home.

5. Limitations

The evaluation of BP@Home faced a number of limitations which included those in the design and delivery of the evaluation, and also limitations with regards to the delivery of the project which impacted upon the evaluation.

Limitations on the design and delivery of the evaluation

Staff changes

Whilst staff may have initially been allocated to work on the project, changes in staffing meant that knowledge around early implementation of the project was not able to be widely collected.

Engagement of patients

It was challenging to recruit patients to take part due to a number of factors including the lack of coding of patients making it difficult for some practices to invite patients, some practices not having yet begun delivery due to the lack of monitors, patients not seeing themselves as part of "something," and constraints on staff time. A range of attempts were made, including inviting all participating PCNs and practices to recruit patients, offering practices a payment to assist in covering recruitment time, offering patients a financial incentive for their time, and reaching out to local Healthwatch organisations. Thus whilst efforts were made, numbers of patients taking part were limited making it difficult to draw conclusions on the patient experience from their perspective.

Limitations on the delivery of the project impacting upon evaluation

As we carried out the evaluation there were broader limitations which impacted upon the evaluation due to challenges in drawing conclusions, lack of delivery to evaluate, and limitations with regards to tracking of patients. These relate to the implementation and delivery of BP@Home.

Delays in receipt of monitors

A number of errors with regards to allocating monitors to south east London have meant that delivery in this area is well behind schedule, with some PCN's only having recently received their final allocation. Some have delayed beginning delivery until they receive their full allocation so that they would have a definitive number of monitors, whilst others have started but been unable to continue or meet demand. This has made understanding impact and having information on delivery in this area difficult.

Differences in delivery

PCNs and practices were able to recruit patients and deliver BP@Home in whatever way best suited them and their patients. Whilst some resources and ways of working were shared, there was no standard operating procedure between PCNs. The result is that for some areas of the evaluation drawing conclusions was difficult as models varied widely and additionally changed as the project progressed.

Limits around coding and data availability

Whilst there are SNOMED codes that were recommended for coding BP@Home devices and readings, there were limitations in what these could capture in particular for tracking monitors. There was some confusion over coding, with some staff not being aware that there were codes that applied. Additionally within some practices and PCNs patients and monitors were not coded. This has impacted upon the ability to record how many monitors were distributed and how many patients were invited to take part or signed up. Additionally in asking for data not all PCNs or practices replied – thus the number of patients benefiting are only those reported back.

6. Recommendations

BP@Home continues to be delivered across south London. Within south west London many practices continue to deliver the project using monitors they have been loaning, or with those still to be allocated. South east London – at the time of writing – have just had their final delivery of over 2500 monitors giving opportunities for using learning from BP@Home to date to improve future delivery. Additionally delivery of remote monitoring can build upon the systems in place, using patients' own monitors. Three areas of recommendations are considered below to aid future delivery of BP@Home.

Set up and design

1. In addition to sending monitors to general practices, more comprehensive implementation resourcing is required. This should include clear procurement and distribution processes for the monitors that minimise staff time, additional nationally available guidance, resources and templates such as text messages for use with patients, and ideal follow-up pathways that are readily circulated for use in primary care.
2. Ensure there is allocation of staffing resources alongside devices. Ensure clear leads in each area alongside others who are aware of delivery to minimise disruption in the event of staff turnover. Staff at ICS, PCN and practice level have many competing priorities – thus delivery needs to ensure that staff are able to manage this for effective delivery.
3. Ensure procedures are in place for procurement and delivery of monitors. Alternative mechanisms for getting monitors to patients would improve delivery – such as supplying monitors on prescription and using pharmacies and hubs for dissemination of monitors.
4. A wide range of cuff sizes needs to be available to ensure all patients can benefit from the service.
5. Ensure adequate codes for the complete pathway of remote monitoring are in place and widely disseminated alongside tailored searches, to enable tracking of monitors and delivery as well as impact. Ensure these are used across PCNs and to enable tracking and monitoring of impact where data sharing allows.

Patient engagement

6. Use co-production to both map pathways and design ones that meet patient need. This is crucial for all stages of the project, from identifying patients and initial contact through to setting expectations around the number of readings required, putting in place mechanisms for returning readings, and designing follow-up processes. Involve a range of patients and staff in co-producing processes, to ensure widest access possible to BP@Home.
7. Look at pathways for initial engagement. Whilst some had success with texts to patients, others found that patients receive many texts from the GP and may ignore these. Notices within GP surgeries may encourage some patients to come forward, in particular those who are not online, as may initial conversations with health care professionals.
8. Enable ways for patients who are currently offline or may otherwise find home monitoring difficult to take part to mitigate against exclusion, including digital exclusion. Clear induction to home monitoring, ongoing support, and mechanisms for returning blood pressure readings in person or by phone can widen the groups of patients able to take part.
9. Ensure follow up with patients to help them understand their readings, and reassurance if they are normal, thereby supporting improved self-management. Where patients drop off follow up is needed to ensure that patients with high blood pressure are not being missed.

Delivery

10. Continue to provide mechanisms for sharing learning and good practice between PCNs and GP practices, and more widely across the country to increase sharing of best practice. Whilst South West London ICS initially offered a regular drop in and a Community of Practice ran for PCNs in south east London, staff felt they would benefit from increased mechanisms for sharing - recognising they may have faced similar challenges.
11. Ensure continued support for delivery of BP@Home. The roll out of the National Blood Pressure Optimisation Programme across England offers a mechanism for supporting areas as they continue delivery. Offering monitors for use at home can be seen as one resource for monitoring of blood pressure as practices look to return to pre-Covid detection and management levels, and improve upon these.
12. A range of options for monitoring are needed to meet patient and staff needs. Blood pressure monitors in practice waiting rooms with office staff trained in how to respond to readings is one option that may work alongside remote monitoring, publicising the use of community pharmacies for readings, and taking readings at every opportunity.
13. Invest in training for the wider staff team to ensure more staff can help with running searches and delivery of the blood pressure projects.