 **suvera**

World Hypertension Day

Get your blood pressure reading taken today



 **lhcp** Lewisham Health and Care Partnership

 **modality** A Connected Way of Care

 **suvera**

Improving cardiovascular health in Core20PLUS5 population

SEL Case Study for Suvera's Model of Care in the NHS

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CHAPTER 1

Challenge in Lewisham

The aim

This project was commissioned as a pilot to improve blood pressure targets for the borough of Lewisham, who have historically been one of the most poorly performing boroughs in South East London Integrated Care Board (SEL ICB). The average achievement has been 55.12%, which is 25% below the national blood pressure ambition of 80%.

SEL ICB engaged Suvera to support in management of hypertension across two identified PCNs in Lewisham. As a result of

previous poor performance in the area, largely attributed to health inequalities, the ICB aimed to target approximately 5000 patients who had not been treated or had been sub-optimally managed previously. SEL ICB sought a novel, innovative virtual care solution that could improve blood pressure outcomes and improve patient engagement. The project has been running for approximately six months since February 2024.

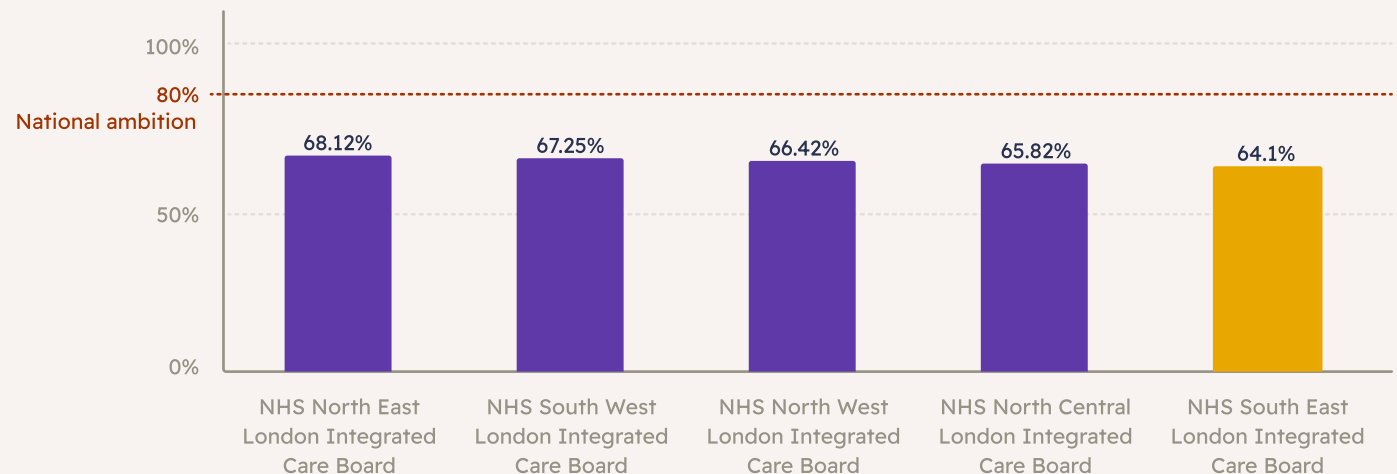
Lewisham had a number of key areas of focus for Cardiovascular Disease within its borough; these included continuing to drive up SEL performance against the ambitions in the Long-Term Plan, one of which was blood pressure targets.

The total patient list size of Lewisham is 300,600 making it the 14th largest borough in London by population. Health inequalities in the area impact performance outcomes and was a key driver for this project. Lewisham borough ranks among the 15% most deprived local authorities in the country. Analysis indicates that 69% (25,557) of individuals already on a hypertension register in SEL are also part of Lewisham's Core20PLUS5 cohort (Core20: 9,890; PLUS-Ethnicity: 13,984; PLUS-Vulnerable: 1,683), highlighting the intersection of healthcare accessibility, health issues and socio-economic disparities.

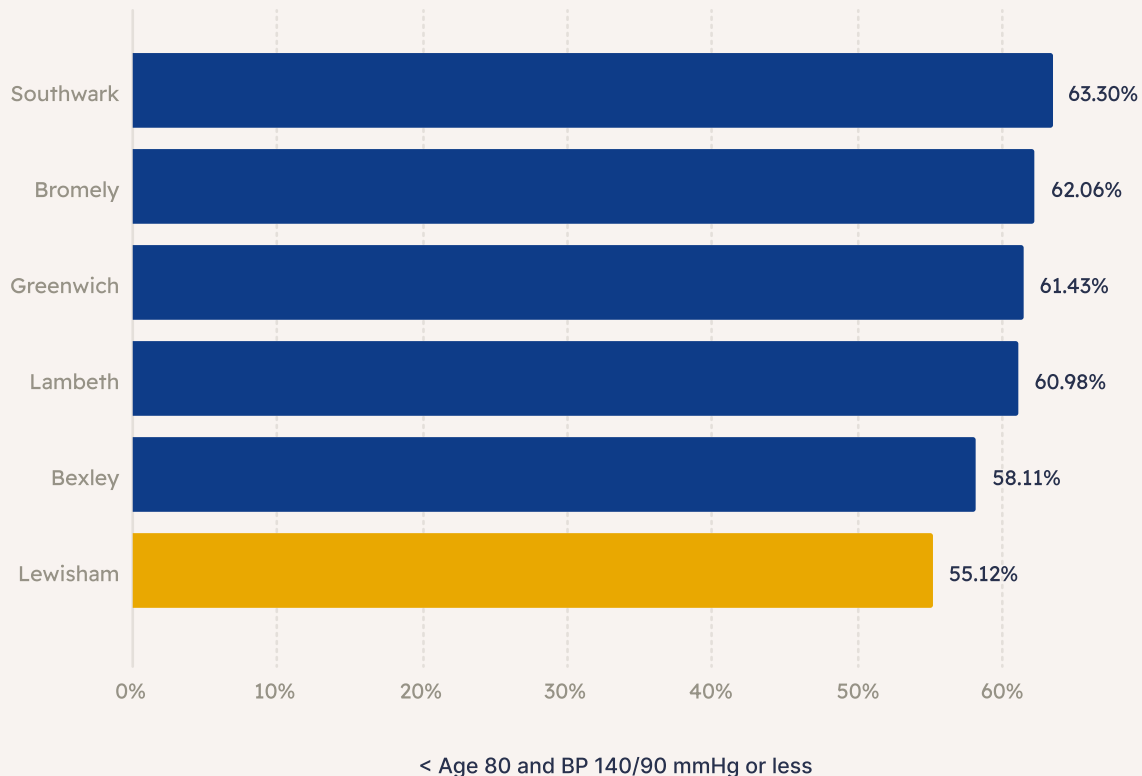
London Wide ICB Performance of CVDP007 HYP - 2024

CVDP007HYP = % of patients aged 18+ with hypertension, in whom the last blood pressure reading (measured in the preceding 12 months) is below the age appropriate treatment threshold. (CVDP007HYP).

South East London ICB is the lowest performing amongst it's neighbouring London colleagues.



South East London ICB - Divided by borough



Within SEL ICB, Lewisham Borough are the most poorly performing. Subsequently, two identified PCNs were identified for this project:

The below are the previous achievements in 2023 for CVDP007HYP (% of patients aged 18+ with hypertension with normal blood pressure targets, which has been consistent over the years:

- Modality Lewisham PCN: 61.05%
- The Lewisham Care Partnership: 56.63%

Local data indicated that patients not achieving blood pressure targets are more likely to be younger (<60), of black African or Caribbean background, male and those living in the two most deprived quintiles. This presented SEL ICB with a clear opportunity to address health inequalities as well as cardiovascular disease prevention, which is both part of the core NHS strategy.

The Intervention:

The CVD Prevention Programme introduced funding in the region of £2 million to address health inequalities related to cardiovascular disease prevention.

Regions were asked to submit to the CVD Prevention National Team proposals which they believe will have the greatest impact for tackling health inequalities for CVD Prevention in their Region.

HIN South, after prior engagement with Lewisham borough, recognised Suvera as a proven Digital Health delivery partner. Following their submission of a proposal, Lewisham was awarded £100,000 to enhance hypertension patient outcomes in the borough. ([news article](#)).

CHAPTER 2

Suvera's solution

Suvera, a population health service, regulated by the CQC and NHS Digital, supports primary care to manage long-term conditions by providing both a clinical workforce and an integrated technology platform to deliver a new model of care. Suvera's holistic virtual service is designed to coordinate care for GP practices, streamline management of complex patients and enhance efficiency.



Duration of the project was 6 months, with a swift onboarding period to then invite and manage 5,000 patients to Suvera's Virtual Clinic. This evaluation of the findings were then undertaken approximately within the past 2 months of finishing the project.

Project highlights

Contract start date **01/02/24**

Contract duration **6 months**

Total funding **£100,000**

Number of patients to be invited **5000**

Month 1: Engagement

Partner	Introduce service and partnership through engaging PCNs and GP practices on Teams drop-in calls, which were recorded and shared.
Onboarding	Onboard Suvera clinicians, align clinical pathways and set-up patient facing marketing and promotion for practice websites.

Month 2-5: Patients onboarding and service launch

- Conduct audits on baseline patient data
- Disseminate bespoke patient resources
- Share Planner dashboard with PCNs to track progress
- Patients invited for review in a phased approach, via Suvera using GP practice's SMS sender ID
- Enrolled patients prompted to submit blood pressure readings via Suvera web app

Month 6: Evaluation of the project

Engagement sessions were provided throughout the past 6 months to assist PCNs who took part in the project. Suvera hosted drop-in sessions, that were protected time for members of the practices to better understand the service and ask questions.

Bi-weekly meetings were held with Suvera's client success team and the ICB, where progress reports were shared, including any barriers to implementation and obstacles.

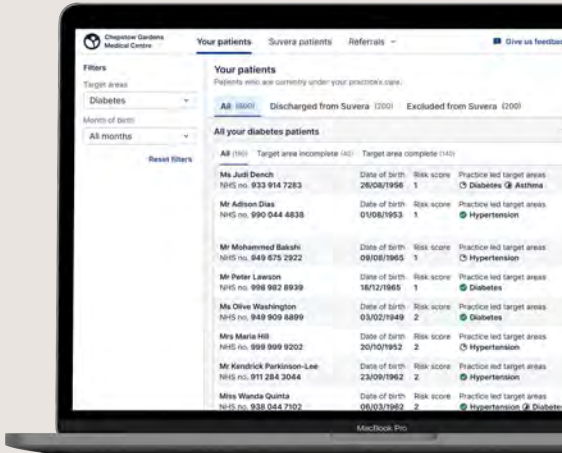
How Suvera's proactive virtual care model works successfully as an extension to General Practice

1

Automatic risk stratified listed from the EHR

Using the patient records we automatically list patients for Suvera and the practice to review separately. Patients were identified and risk stratified using UCLP searches (now CVD action)

Planner

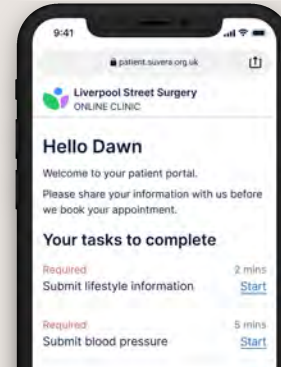


2

Automatic invite to the Virtual Clinic

Patients receive a personalised SMS, from the GP Practice, inviting them to join Suvera's virtual clinic

App

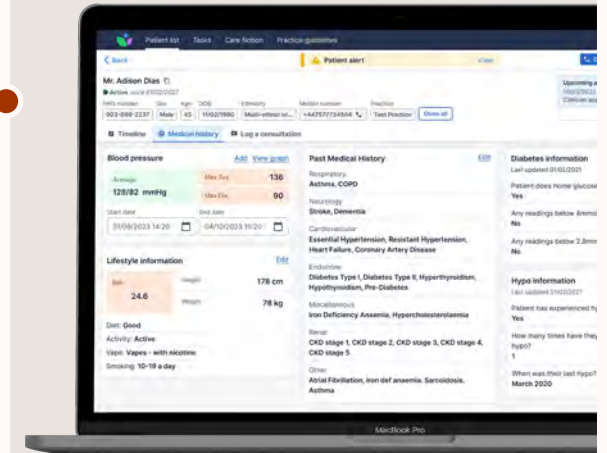


3

Triaging of clinical data

Upon receiving data, Suvera's clinicians reviews data and the proactive technology platform automatically sets up sequences of care

Dashboard



4

Sync clinical review with patient

Patients have telephone or video consultations to discuss test results, treatment and goals with our pharmacist team, supervised by Suvera's own GPs.



CHAPTER 3

Patients managed by Suvera

Successfully engaging the Lewisham CORE20PLUS5 patient population and individuals living in deprived localities was a key goal for the programme. Suvera provided end-to-end support, from patient outreach through to coordinating call and recall of patients and subsequently treating and managing the patients to target. Suvera's pathway has been designed and user-tested to ensure optimal engagement throughout and empower health management. This includes automated outreach and pre-scheduled appointments (which have been statistically validated to result in lower disengagement rates and reduce "Did Not Attend" (DNAs), as evidence by research here [\(Link\)](#).

Patients are invited with an initial SMS followed by a reminder SMS. If further follow-up is needed, patients receive letters and an automated pre-scheduled phone call to maximise engagement and uptake. Additionally, patients can use Suvera's web application at any time to submit blood pressure readings, which Suvera's clinical team then automatically triages and reviews. This comprehensive approach significantly boosts patient participation and ensures timely management of health.



CHAPTER 4

Achievements in Lewisham by Suvera

Patients Invited:

5000

Total Invites Sent:

5644

(644 pts re-invited with letters)

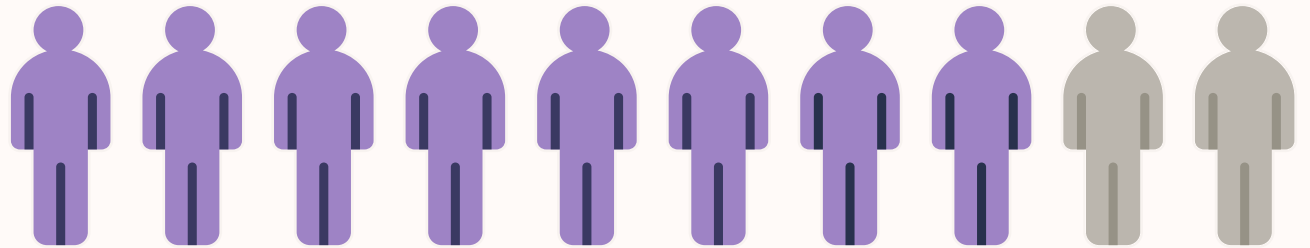
Overall patient Engagement

80.7% (4035 patients)

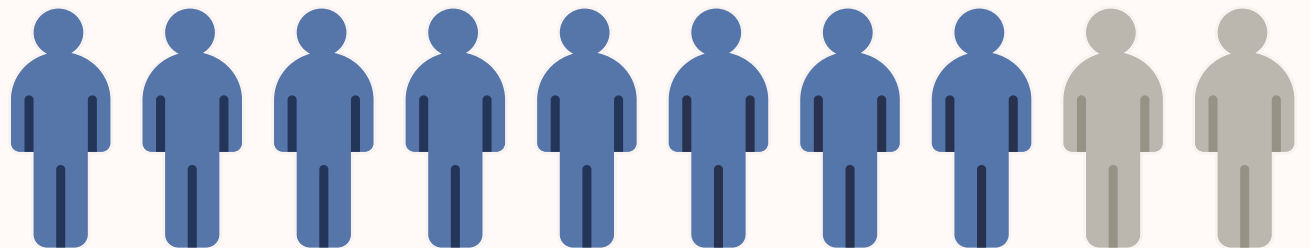
Non-engagement despite 3+ attempts
across multiple modalities

19.3% (965 patients)

Core20PLUS5 Engagement Rate **80.8%**

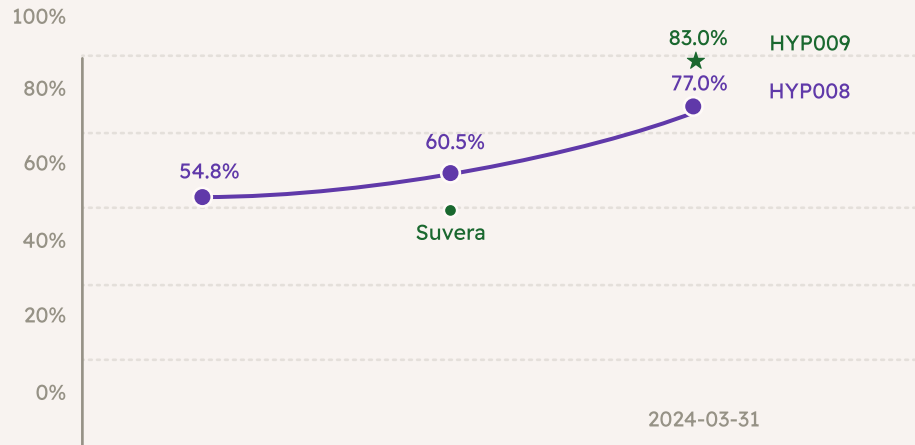


Non-Core20PLUS5 Engagement Rate **81.0%**



Immediate impact

TLCP PCN: Hypertension QOF Management from Feb 2024 → Mar 2024



HYP008 = Management of patients under 79 to BP target

HYP009 = Management of patients over 80 to BP target



In February 2024, The Lewisham Care Partnership was at 60.5% for their achievement in HYP008 target. Suvera assisted and improved hypertension management to achieve a maximum completion of 77%.

What's particularly significant is that this was accomplished with fewer patients being exception reported (a reduction of almost 12%), meaning that an additional 714 patients were treated to target range.

Impact in Lewisham over the 6 month project

TLCP PCN & Modality Lewisham PCN from Feb 2024 → Sept 2024

101,435

Total contacts made with patients

41,009
clinician contacts

60,426
platform automated contacts



80.9% overall patient engagement

**On average 16.4 days from
invite to achieving blood
pressure control with Suvera**


**10.31mmHg average mmHg of
systolic blood pressure improvement**

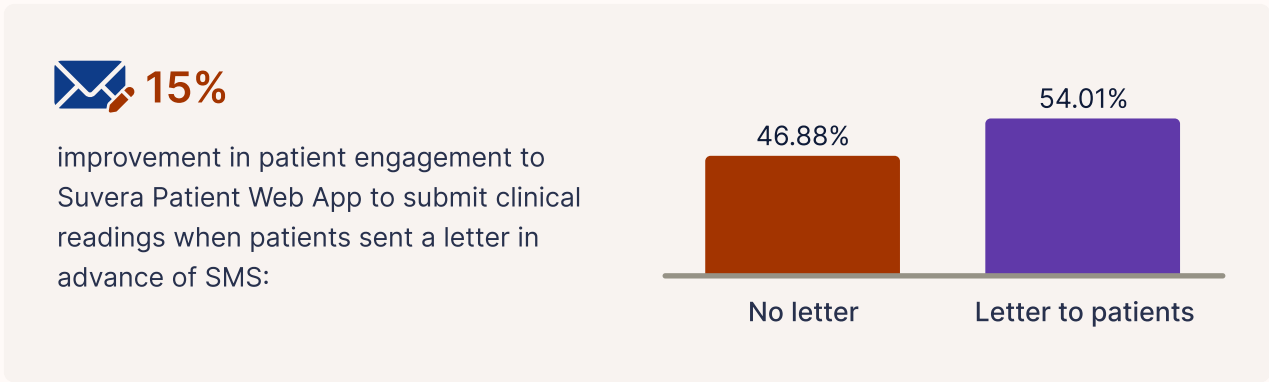


 **7,443** of consultations successful

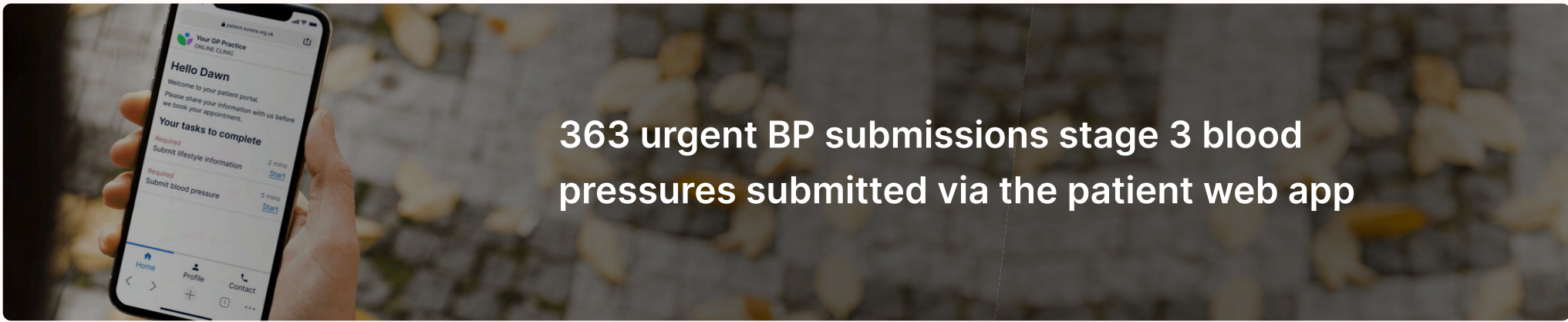

15,908
patient submitted blood pressure readings


1052
patient submitted holistic lifestyle questionnaires

 **7,450** clinician-generated SMSs sent via the Suvera Platform



85%
of patients who submitted a stage 3 blood pressure were seen within 24 hours



363 urgent BP submissions stage 3 blood pressures submitted via the patient web app

CHAPTER 5

Patient Experience

Accessibility is central to the design of the Suvera patient web app, which has been patient-tested to ensure it accommodates individuals who may be colour blind or shortsighted. Furthermore, all communications in the Web App are designed to be easily understood, by as many people as possible. The content of the Web App and all Suvera communications is tailored to a 9-year-old's reading age level of comprehension, ensuring clarity and inclusivity for the widest possible audience. Finally, full live-language-translation services are available in all of Suvera's consultations.

“

Easier to get an appointment



“

I think better than ever I am very pleased with very professional staff. Very satisfied



“

I think the online clinic is great, and takes the anxiety out of visiting the clinic.



“

The process meets my expectations



Patient Experience

Suvera aimed to evaluate the acceptability of the service amongst its patients. A survey was sent out to 1000 patients who had opted to use the service.

We had 124 responses. A response rate of over 10%.

More usage of the online web app compared to phone call submissions.

63%

Patients rating the Suvera healthcare professional Very Good or Good at listening

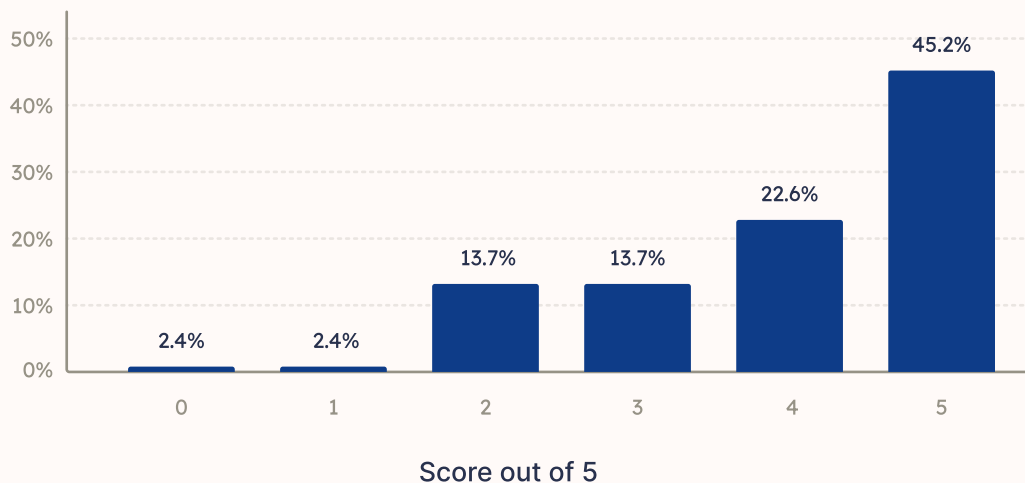
81.5%

Users aged over 55

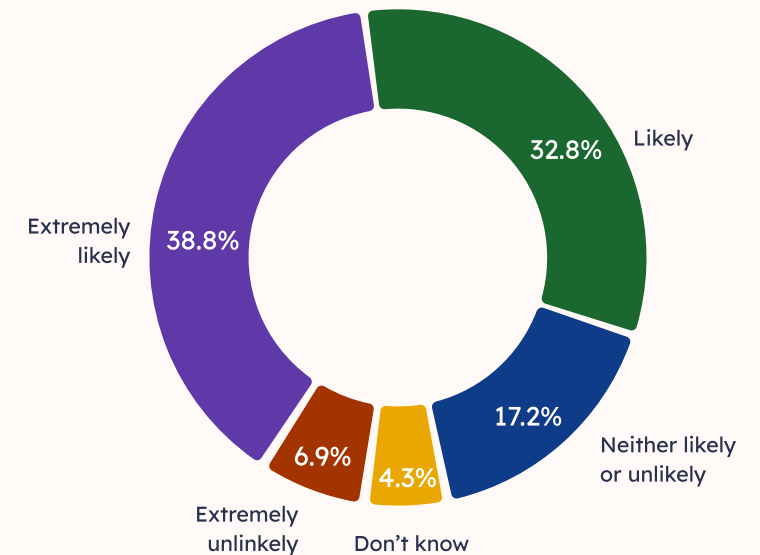
91.6%

How would you rate your experience with our online blood pressure clinic so far?

124 out of 124 people answered this question



How likely are you to recommend Suvera



CHAPTER 6

Clinical impact on patients in Lewisham by Suvera

The Virtual Clinic saw significant improvements in patients' blood pressure in Lewisham over 6 months. The graph below demonstrates that upon enrolment in the program, the Virtual Clinic reduced patient's systolic blood pressure by an average of 10.3 mmHg per patient.

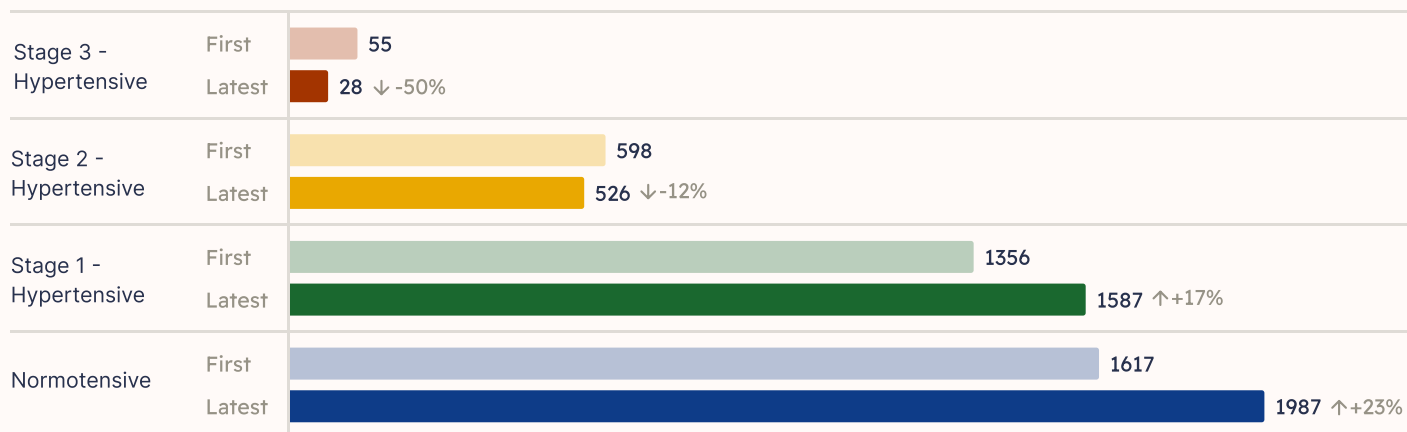
Out of the patients who submitted BP readings, 70.3% of patients were at normal blood pressure control post-intervention with Suvera as their most recent blood pressure reading. This was a total of 1987 patients who were managed-to-target in the programme.

52% of patients moved from the highest-risk of stage 3 to a lower-risk level of high blood pressure. A significant step in prevention of CVD events. On average, 16.4 days was required from invite to achieving normal control for those uncontrolled on their first reading.

Blood Pressure Improvements over 6-months in Lewisham

The graph shows patients managed by Suvera, and the stages which they have improved from their first to their most recent blood pressure reading.

Stage



Total Count
n=3626

Most recent BP stage

- **Stage 3 -Hypertensive**
≥ 175 mmHg Systolic and/or ≥115 mmHg Diastolic
- **Stage 2 -Hypertensive**
≥ 150 mmHg Systolic and/or ≥95 mmHg Diastolic
- **Stage 1 -Hypertensive**
≥ 135 mmHg Systolic and/or ≥98 mmHg Diastolic
- **Normotensive**
< 135 mmHg Systolic and/or ≥85 mmHg Diastolic

CHAPTER 7

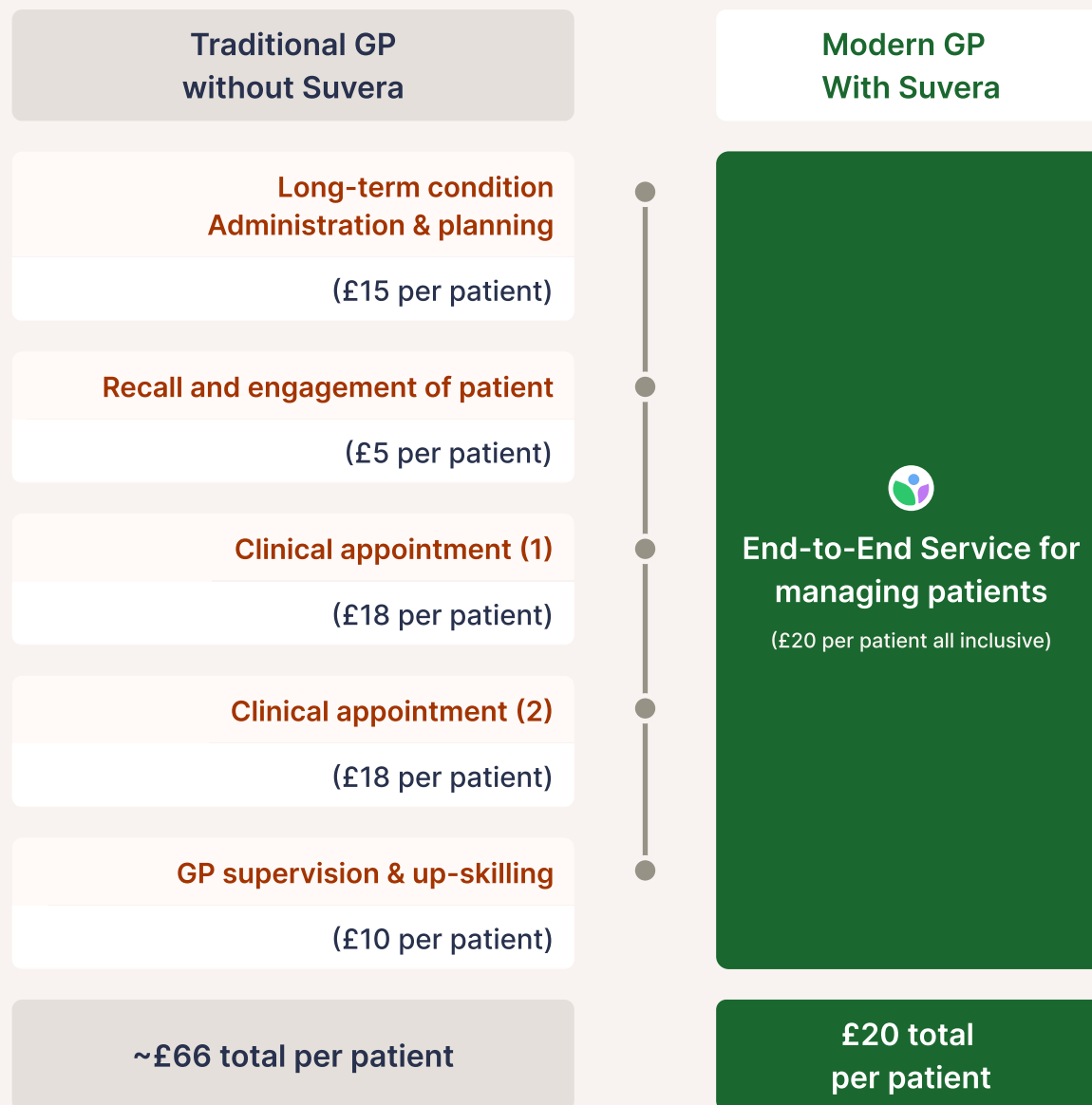
Economic impact of Suvera's virtual clinic in SEL ICB

Lewisham is a high deprivation area with a large population of uncontrolled hypertensive patients with only 56% of known hypertension patients target complete. If optimally treated, this segment of patients, who often do not engage frequently with the health system, would generate a significant positive impact on the system both clinically and economically.

Office of National Statistics (ONS) [data](#) shows that between March 2021 and January 2023, the age-standardised mortality rate in the lowest IMD decile was almost double that of the highest decile. This is why tackling health inequalities is so important.

The economic benefits of Suvera's intervention on this population cohort are vast and are therefore categorised below into savings to:

1. Primary care (which are realised within 1-year of the intervention)
2. Secondary care (realised from year-3 onwards of the intervention).



Primary care savings:

Reduction in general practice appointments

Managing 5000 patients with known hypertension in Lewisham has significantly reduced general practice workloads. Prior to Suvera, strain on GP practices was evident with an achievement rate 25% below the SEL ICS target. Suvera's intervention has effectively extended general practice capacity, importantly, without the need for additional estates and integrating with the GP Practice workflows.

The Suvera model has seen engagement rates of over 80% and achieved an average 10.3 mmHg reduction in systolic blood pressure. The economic impact of such significant clinical outcomes are discussed in the next section.

Without the support of Suvera, both PCNs would have had to invite 5000 patients using traditional models. This would typically reach and engage around 65% of patients (3,250 patients). This would also require intensive planning in co-ordinating recalls from the administrative team. Then, all too often phone calls result in multiple DNA attempts. All this workload was offset by taking part in the Suvera model.

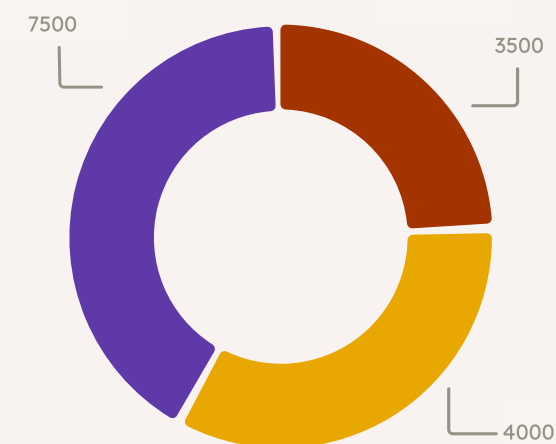
Engaged patients, on average, would require two consultations to reach target blood pressure control. With Suvera supporting - the two PCNs have saved a combined total of ~7,500 appointments. At a blended appointment cost of £18* per appointment, this totals £135,000 in savings from engaged patients.

**£18 is a blended cost of mixed workforce delivering consultations (HCAs, Nurses, Pharmacists, GPs with costs of physical estates, where required). [Link](#)*

For the non-engaged, 35% of the population (around 1750 patients), this cohort would still be expected to receive, at least, three engagement attempts per year, across multiple channels (telephone calls, SMS and/or letters) in order to give them sufficient opportunities to engage. A GP recall team would require 25 minutes per patient on average over the course of three attempts.

With costs for administration, running searches, generating lists, recalling patients and SMS messages, this would cost ~£20 per patient. Therefore, an additional £35,000 in time and operational costs were mitigated through Suvera's end-to-end service conducting engagement for the expected 1750 non-engagers.

Total hours in appointments saved by the two PCNs during the Suvera 6-month Pilot



- Number of GP appointments saved (with medication review)
- Number of non-clinical engagement calls
- Number of blood pressure questionnaires to review

In fact, not only did Suvera save practice appointments and therefore time, but Suvera's proactive recall platform engaged more patients (80.7%) compared to the GP practice average of ~65%. This was possible through a combination of Suvera's automated, personalised behavioural nudges alongside timely, human care-coordinator outreach across multiple channels (SMS/Mobile/Landline/Letters).

The Suvera service aligns with the Triple Aim framework, which focuses on improving patient experience, enhancing population health, and reducing costs.

1. Improving Patient Experience: The service has increased patient engagement by 14%
2. Enhancing Population Health: The service achieved a 10.3 mmHg reduction in blood pressure
3. Reducing Costs: The service saved £70,000 in primary care by providing a technology driven end-to-end service.

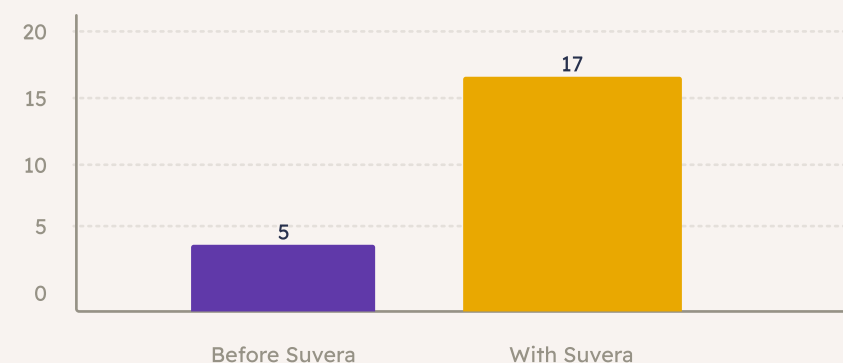
Suvera's Primary Care Saving Summary:

£170,000 saved from reduction in appointments for General Practice in the 5000 patient population:

- £100,000 saved from the engaged patients through administration, clinical reviews and managing patients to target range.
- £70,000 saved from administration, and recall outreach of patients who need to be contacted each year.

Demonstrating a saving of £1.70 in Primary Care from £1.00 invested in the Suvera Virtual Clinic

Average patients contacts with Suvera vs traditional models



Suvera's virtual clinic delivers an average of 17 patient contacts, defined as clinical activities that advance care, such as telephone consultations, requesting tests, and sending SMSs.

The technology-driven Suvera model uses automation to boost productivity, offering 3 times more patient contacts than the traditional model, which typically provides 5-6 contacts.

The Suvera model encourages patients to be empowered in their health and allows them to be active participants in managing their own health, whilst reducing clinician workload.

Secondary care savings:

Reduction in avoidable hospital admissions relating to poor CVD control

Cardiovascular disease is one of the biggest killers in the UK, and contributes to one death every four minutes. There is a multitude of evidence that demonstrate that hospital admissions are avoidable through earlier, improved management of long-term conditions in primary care. Accident and emergency visits (£150) cost the system five times more than GP appointments (£30), just in the presentation alone. In fact, for every stroke, the cost of in-hospital care and subsequent rehabilitation averages £24,478 in the first year. [Link](#)

An ageing patient population and shortfall in the number of GPs per patient makes cardiovascular disease prevention a key national priority, particularly in areas such as Lewisham. Public Health England analysis shows that 40% of amenable CVD deaths occur in the 3 most deprived deciles of England. [Link](#)

Therefore Suvera's intervention with its focus on CVD prevention as a whole yields one of the highest cost savings per £1 spent in the system due to preventable hospital admissions.

This landmark Lancet paper highlights the reduction in systolic blood pressure required to prevent strokes and heart attacks. [Link](#)

Reduction in cardiovascular events

A 10 mmHg decrease in systolic blood pressure lowers the risk of:

Major cardiovascular events	- 20%
Coronary heart disease	- 17%
Strokes	- 27%
Heart failure	- 28%
All-cause mortality	- 13%

Reduction in cardiovascular events in Suvera's patients

In our cohort, 2,435 patients experienced on average more than a 10 mmHg reduction in systolic blood pressure.

Based on the Lancet data, we can model that over the coming years in our treatment cohort (with the first event prevented as soon as year 3):

 40

Expected reduction in stroke events

 25

Expected reduction in heart attacks

Given the stroke risk reduction of 27% (RR 0.73, 95% CI 0.68–0.77), it would prevent approximately 40 strokes, given the baseline cardiovascular risk of 6.8% in males and 6.3% in females.

Heart attack (coronary heart disease) risk reduction by 17% (RR 0.83, 95% CI 0.78–0.88), would prevent around 25 heart attacks.

The outcomes achieved by Suvera's intervention of preventing 40 strokes and 25 heart attacks will begin to materialise within just 3 years from now as evidenced by (Ettehad et al [Link](#)). The potential economic savings from preventing CVD events is significant and can systems will see impact in the short to medium term rather than the often perceived long-term for preventative programmes.

Suvera's Secondary Care Saving Summary:

- Each stroke costs approximately £20,000 in the first year alone, the prevention of 40 strokes could lead to £800,000 in savings. ([Link](#))
- If you factor in the societal impact of 40 strokes and 25 heart attacks on the wider social system, through unpaid care hours and lost productivity, it comes to an additional £20,000 per year per patient. This is not to mention the emotional impact to friends and families for these 65 prevented cardiovascular events. ([Link](#))

Overall there is a conservative saving of **£8.00 in Secondary Care** from **£1.00 invested in the Suvera Virtual Clinic model**

Suvera's Primary + Secondary Care Saving Summary:

Initial investment for Suvera = £100,000

- Primary care cost savings (£1.70 saved per £1.00 spent)
- Secondary care (£8.00 saved per £1.00 spent)

Therefore, a community focussed preventative, digitally powered care model presents a **£9.70 return for every £1.00 spent by the NHS**. In other words, £970,000 will be saved to the system from this pilot intervention alone.

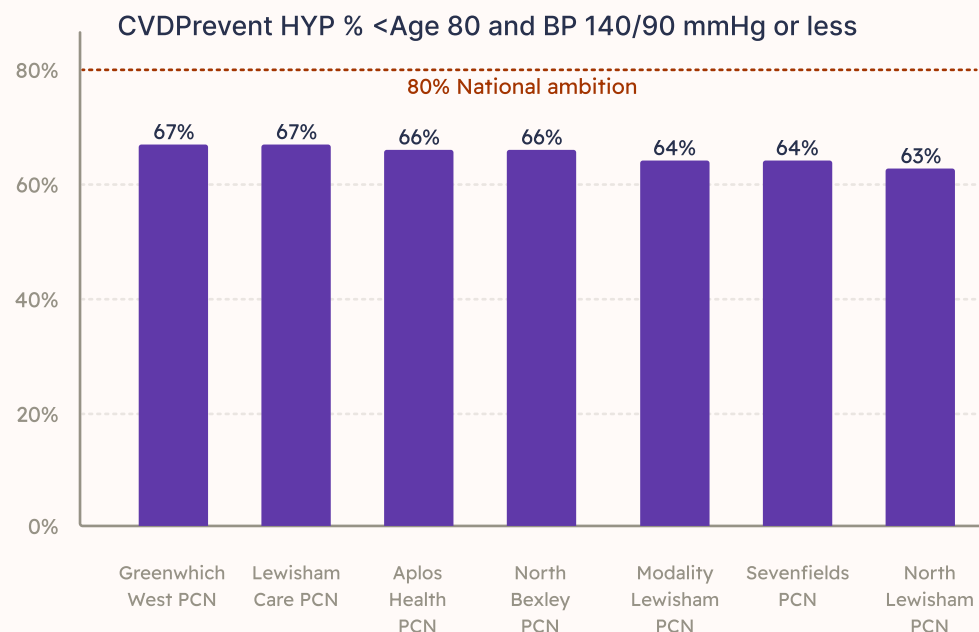
CHAPTER 8

Future opportunities

Suvera is projected to surpass the National Ambition target of 80+% of patients with hypertension controlled if the project is continued to the end of year. This will be something that has not been previously achieved in the history of either PCN.

The improvements in performance could be seen across SEL ICB. The below graph highlights that the bottom 20% of PCN's on average falls 15% short of the national ambition of 80%. This is approximately 8,000 patients with known, uncontrolled hypertension.

Suvera's Proactive model could manage this cohort of patients ensuring a £9.70 saving for every £1.00 invested. Potentially saving hundreds of CVD events, as well as millions of pounds.



CHAPTER 9

Challenges

1

Cyber attacks

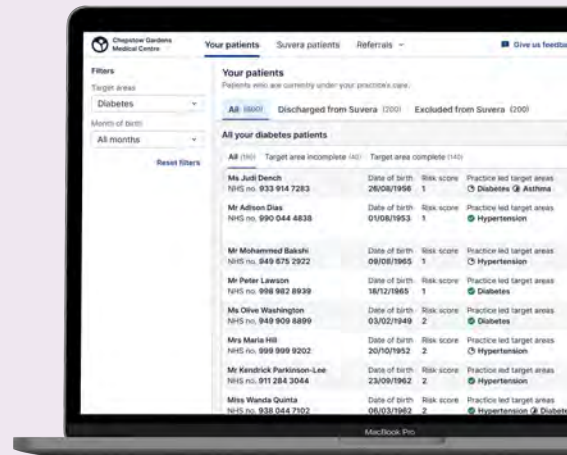
A cyber attack caused disruptions in processing and performing blood tests, impacting patients who needed these tests to evaluate kidney function before their medications could be reviewed or adjusted. Despite this, Suvera was able to manage patients who could have medications initiated that did not require blood tests, while directing only those in urgent need of tests through the agreed pathway. Although the cyber attack affected urgent case management and safe prescribing, a new pathway was developed to classify cases needing urgent blood tests. Suvera's clinical team adapted to this, ensuring the continued delivery of high-quality care.

On Monday 3 June, Synnovis – a pathology partnership between Guy's and St Thomas' NHS Foundation Trust, King's College Hospitals NHS Trust and SYNLAB - was the victim of a ransomware cyberattack, resulting in a major IT incident and a significant reduction in capacity to process samples.

2

Competing interests

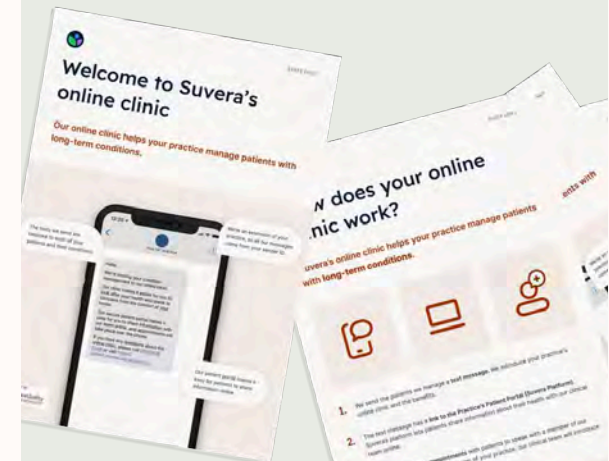
One of the PCNs has still been commissioned to receive support from another digital provider who were also conducting Hypertension reviews. This led to confusion and often duplication of work within the PCN. Suvera was able to support the practice to allow them visibility on patients that Suvera were managing or were going to invite for a review with the Suvera Planner to minimise the amount of duplication.



3

Patient reassurance

We proactively met with the practice reception team to ensure they were comfortable explaining the service to patients. Informative staff material was shared that outlined the commonly cited concerns from patients and how to address them. Furthermore, all communications with the patient were collaborated on with the practice in advance to ensure it was consistent with their own messaging.



CHAPTER 10

World Hypertension Day

Suvera has a proven track record of conducting case-finding work to identify and prevent cardiovascular disease ([prior case studies here](#)). Therefore, as part of World Hypertension day, Suvera also collaborated with SEL ICB to support the local communities with opportunistic blood pressure testing. This was an attempt to publicise the importance of blood pressure and its impact on health, but to also improve the local uptake of blood pressure checks in the community who otherwise engage infrequently with their health service.

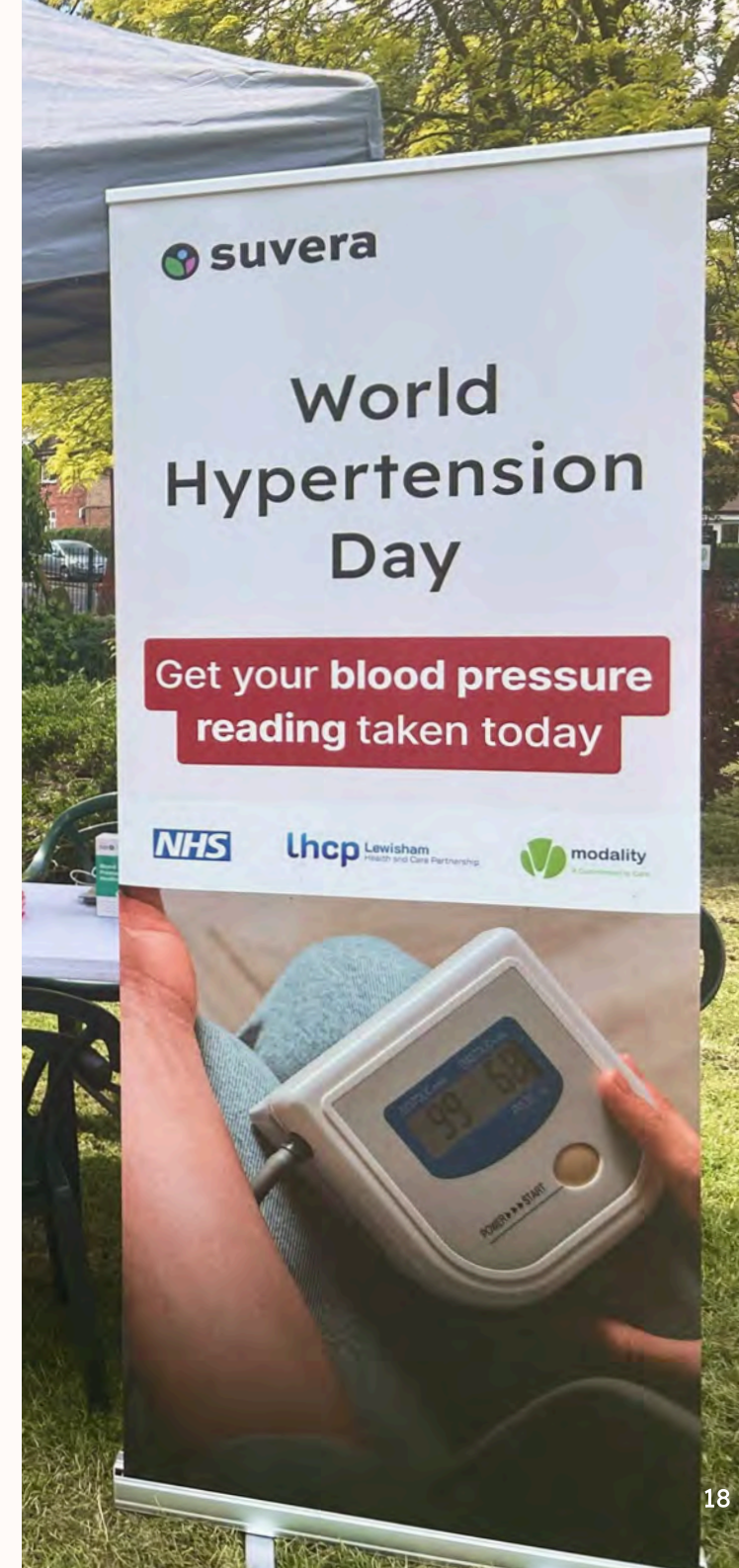
Suvera's team of clinicians visited three main sites in Lewisham: Bellingham Green, Lewisham Shopping Centre and also St John's Medical Practice.

The day was a success with an astounding total of 156 blood pressures taken across the 3 sites.

For instance, at Lewisham Shopping Centre, 78 blood pressures were taken: 10 of those had elevated blood pressure (stage 1), 4 had very high blood pressure (Stage 2) and 1 required an urgent review (Stage 3) and was informed to make a same-day GP appointment. During the checks we also identified 2 patients with irregular pulses who were sent for further

evaluation for Atrial Fibrillation (AF), highlighting the importance of opportunistic testing.

Many patients who were opportunistically tested shared that they had not had a BP check in the last 5 years. Furthermore, on reviewing the patient records, 30% of patients with elevated blood pressure readings were not previously identified as hypertensive, warranting further investigation with the GP Practice. [Link to the day of the event](#)



CHAPTER 11

Conclusion

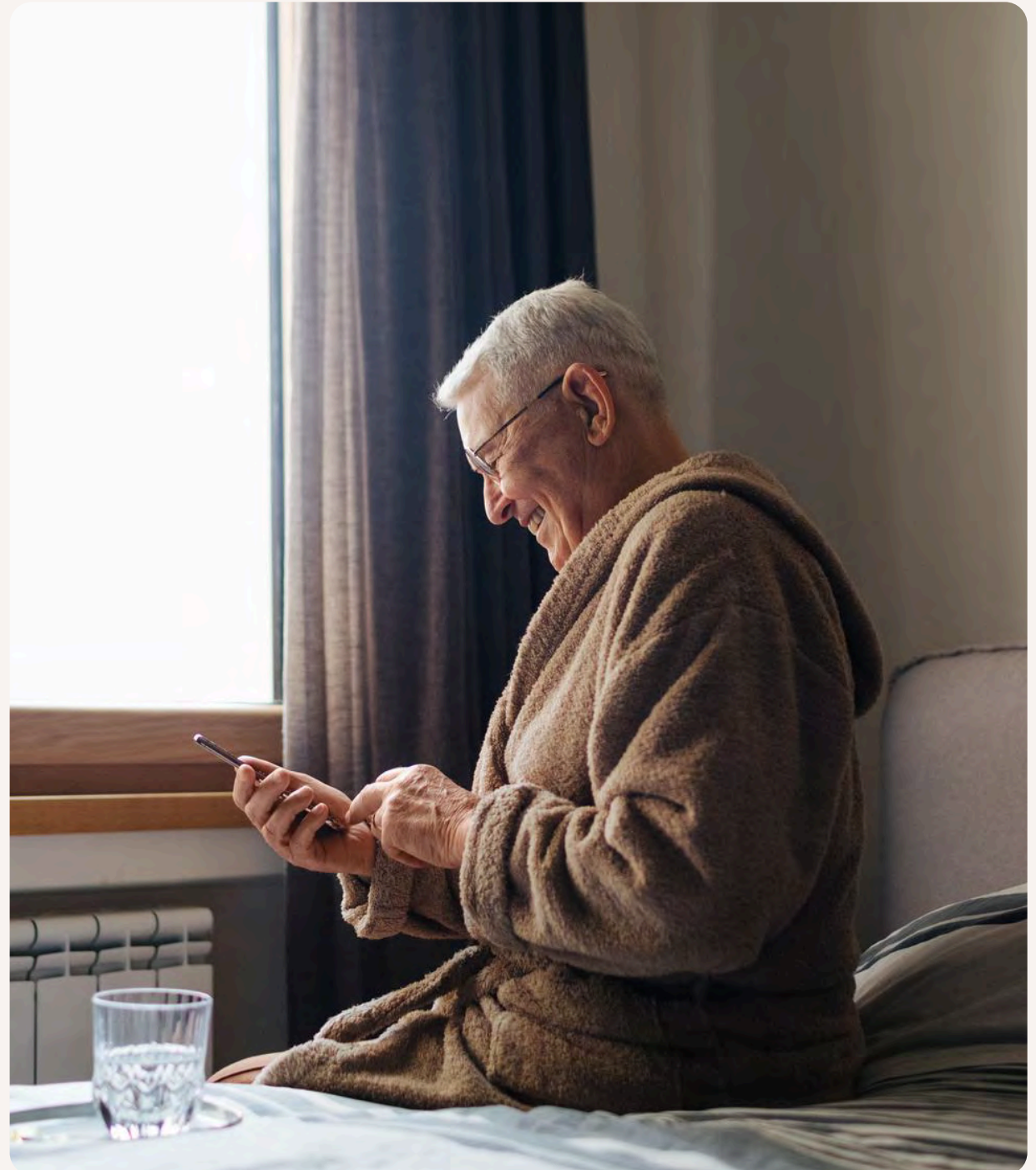
This evaluation demonstrates how Suvera has achieved ambitions set by SEL ICB, meeting the triple aim of improved care experiences and population health at reduced cost.

Supporting hypertension management across two PCNs, Suvera has helped to elevate previous performance on blood pressure targets. At the same time, have successfully engaged target patient populations, reaching individuals in all deprivation groups.

The solution has proven to reduce the need for in person GP appointments, secondary admissions and adverse events combined with cost savings across primary and secondary care, illustrating system impact and return on investment.

Now, this approach could scale to support more long-term conditions and manage complex multimorbidity, through a one-stop shop model. For example, Suvera's platform can enable patients living with hypertension, diabetes, asthma, cholesterol or COPD to be reviewed holistically. This would further improve system efficiency and care experiences.

Suvera has also created a host of services to support primary care including services to aid NHS health checks and proactive planners to help with call and recall of patients with chronic disease.





Providing NHS services

Thank you for reading, contact us on:
partnerships@suvera.co.uk