Community Blood Pressure Protocol Development

Mabadiliko CIC
Final Report

Commissioned by the Health Innovation Network, the South East London Cardiovascular Network and Clinical Effectiveness South East London

December 2023

Transforming the dialogue between communities and the health and research systems

Contents

Executive Summary

Objective

Our objective was to develop, test and refine community-based BP testing protocols that are acceptable and adopted by South East London (SEL) residents, including both patients diagnosed with hypertension who are not regularly engaging with healthcare professionals to optimise their treatment, and residents who are at risk but not seeing their GP or other healthcare professional for testing. Specific targeted communities included:

- Racially minoritised people
- People living in poverty
- People living with physical disabilities.

Approach

We adopted a Task and Finish Group (TFG) approach to co-produce BP protocols. The TFG consisted of both community leaders, health system colleagues and SEL residents. The co-produced protocols were implemented in 4 different locations during September 2023. In total, 160 residents receiving the intervention provided both demographic data and feedback on the protocol. Final protocols were developed in both process maps and prompt/cue versions.

Outcomes

Collectively we developed a protocol that can be applied in both primary care and community-based contexts.

The protocol can be delivered with community-members only (subject to appropriate training) however the true value of the intervention emerged from the combination of both community members and clinicians.

The prompt/cue version of the maps provides guidance on key language to both engage participants in the intervention and to obtain accurate information to enable tailored support.

Feedback from participants was highly positive, with a request for further roll-out of the intervention.

Benefits were also described by our TFG members, particularly those who took part in implementation days. Benefits included increased skills from community members, increased visibility of community-based opportunities by clinicians, and the opportunity to network and connect across all stakeholders. A number of lessons learned were developed through the project, as described later in this report.

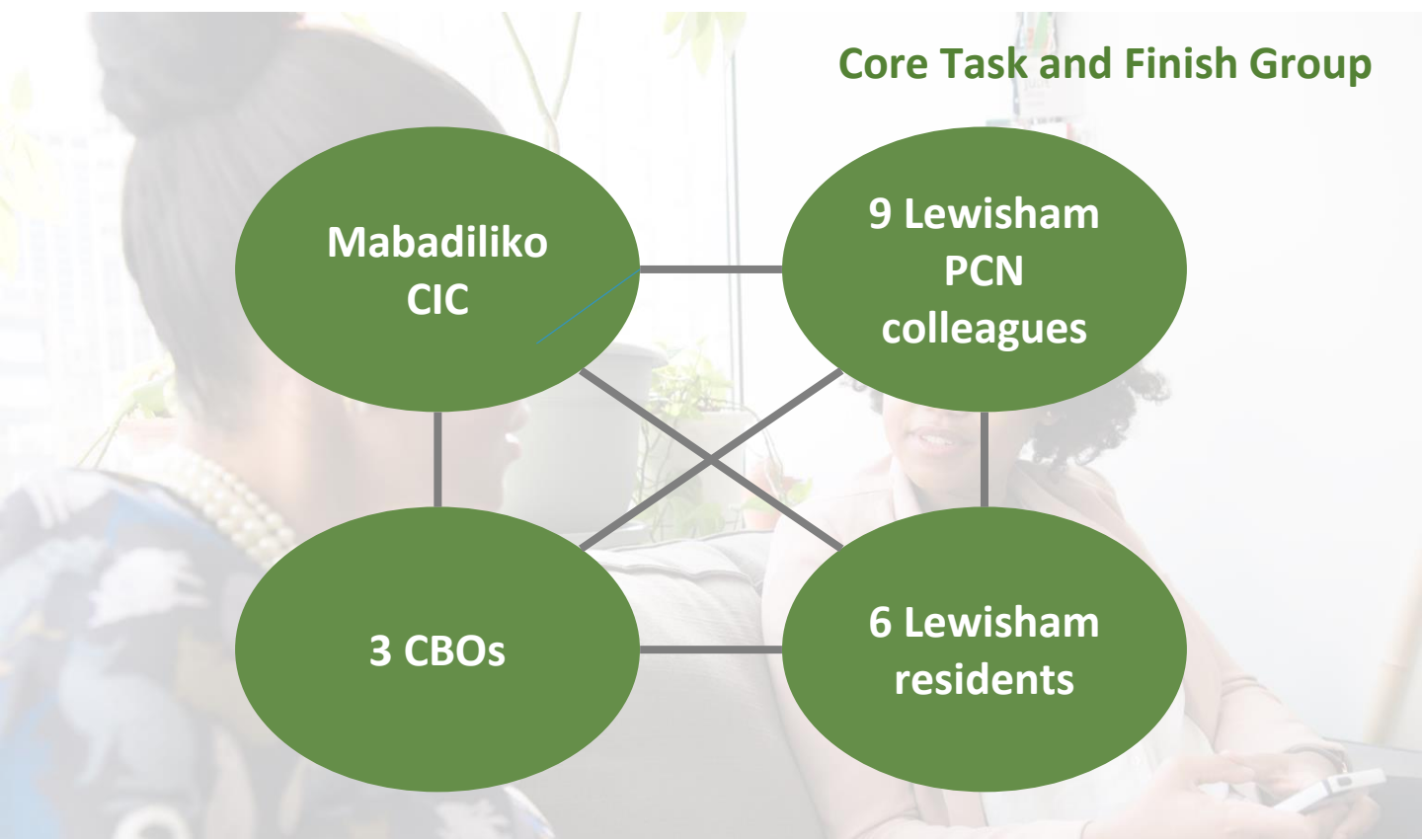
Co-production approach

Co-production took place via a Task and Finish Group (TFG) comprising community leaders from Community Based Organisations (CBOs), residents and local Primary Care Network (PCN) staff.

TFG Development

Leveraging a separate project that was being delivered (Research Engagement Network Development – REN), we took the following approach to recruiting the TFG.

- Leveraged existing commitment and buy-in from 2 x Lewisham PCNs to engage with their PCNs about the project and recruit 1 GP and 1 HCA (Health Care Assistant) per PCN to participate in the TFG.
- Recruited 3 CBOs from the REND project as an opportunity to transfer skills and learning across two ICB-scoped projects.
- The 3 CBOs recruited 2 residents each from their own research networks developed during the REND project.



TFG members co-produced the protocols, and selected members participated in implementation and evaluation activities. The TFG also provided the opportunity for networking and the development of equitable working relationships between community-based stakeholders and the health system. Stakeholders from CESL, HIN, CVD Network and King's Health Partners were invited to attend TFG sessions.

Overview of phased activity

Phase 1 –Mobilisation and recruitment

- We performed a rapid review of **existing insights** from recent studies to identify key elements to be considered during Phase 2 (protocol co-production).

- **We developed and recruited into the TFG**. PCNs led their own recruitment, Mabadiliko CIC led CBO recruitment and CBOs led resident recruitment.

- We delivered a 2- hour **onboarding session with the TFG.**

Phase 2 – Co-produce protocols

The TFG joined a **1-day face to face co-production workshop to:**

- Identify 3 community-based settings for blood pressure (BP) testing
- Develop 3 BP testing protocols (using existing protocols as a starter for 10). *Please note: the TFG ultimately designed one protocol with some minor context-specific variations.*
- Develop a short evaluation survey that people who have their BP tested will be asked to complete.
- Agree implementation plan and timeline.

Workshop outputs were used, alongside behavioural science techniques, to develop a draft protocol. The TFG met again for **1-day face to face co-production workshop** to review and refine the final protocol, receive basic training on taking BP readings and have the opportunity to practice delivery of the protocol via role play.

Phase 3 – Implement, evaluate and refine protocols

We **implemented and evaluated the protocol in 4 locations during September 2023.**

- Each community testing day was attended by at least one community member and 1 clinician (ultimately all clinicians were junior doctors).

- At the point of BP testing, residents were asked to **evaluate their acceptability of the protocol** using a short survey based on Theoretical Framework of Acceptability TFA, Sekhon et al 2017) constructs (qualitative and quantitative).

Phase 4 – Finalise protocols, report and share

- We captured **feedback from project participants** (PCNs, CBOs and residents) to evaluate their experiences of taking part in the work.

- This report reflects the final project deliverable, including:
  - A description of key project activities, enablers, challenges and lessons learned/ recommendations.
  - Summary evaluation data
  - A finalised community-based BP protocol (in multiple versions)

Activity Highlights

Phase 1 –Mobilisation and recruitment

PHASE 1 ACTIVITIES

We performed a rapid review of existing insights from recent studies to identify key elements to be considered during Phase 2 (protocol co-production). This included:

1. Pathfinder STOP BP patient listening exercise (2022/23)
2. An additional literature review which focussed on BP testing and more general screening interventions.

The commissioning team helped to identify existing BP protocols that existed within SEL. These protocols were also used as inputs for our protocol development.

We developed targeted communications which were aimed at recruiting TFG (Task and Finish Group), which included both community members and clinicians. The onboarding session took place on 30th March 2023 with the following agenda:

Item	Lead
Project recap and Introductions	Dr. Nadine Fontaine-Palmer
Presentation – Hypertension and Health Inequalities	Dr. Aaminah Verity
Presentation - Blood pressure testing in non-traditional environments.	Dr. Mariam Molokhia
Next Steps and Q&A	Nadine Fontaine-Palmer, All

Phase 2 – Co-produce protocols

PHASE 2 ACTIVITIES

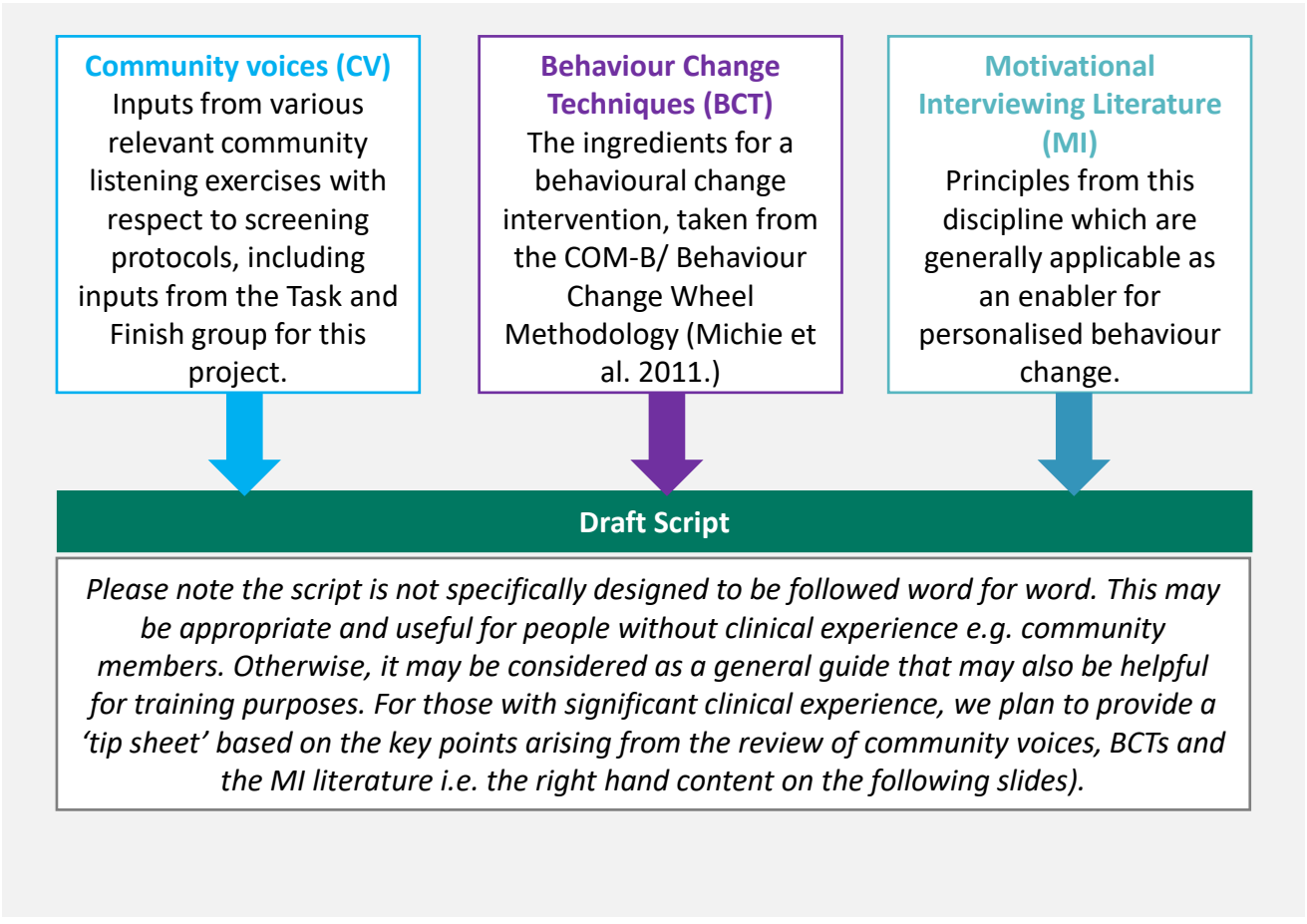
The TFG joined a 1-day face to face co-production workshop to:

- Identify 3 community-based settings for blood pressure (BP) testing
- Develop 3 BP testing protocols (using existing protocols as a starter for 10). Please note: the TFG ultimately designed one protocol with some minor context-specific variations.
- Agree implementation plan and timeline.

Activity Highlights

Phase 2 – Co-produce protocols continued

Workshop outputs were used, alongside behavioural science techniques, to develop a draft protocol. Clinical guidance was obtained primarily from the Phase 1 Vital 5 Health Check and clinical advice from the project steering group.



A draft and then final 'clean' protocol script (without behavioural science references) and with key steps was used for the second co-production day.

The TFG met again for **1-day face to face co-production workshop** to review and refine the final protocol, receive basic training on taking BP readings and have the opportunity to practice delivery of the protocol via role play.

Activity Highlights

Phase 3 – Implement, evaluate and refine protocols

PHASE 3 ACTIVITIES

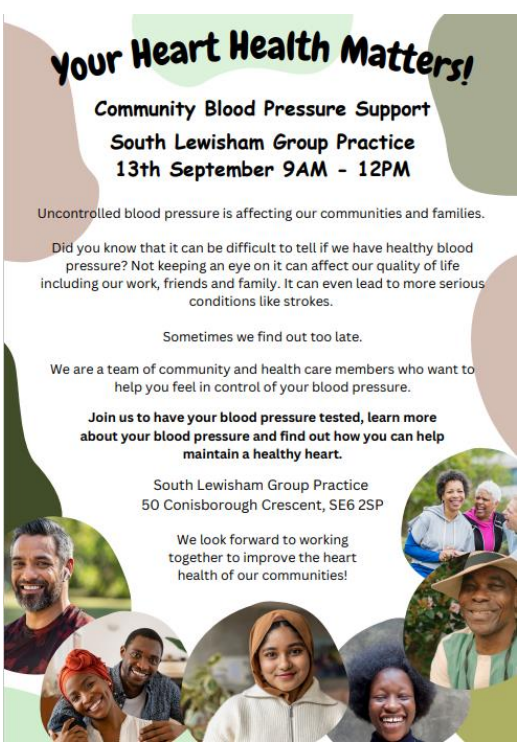
We implemented and evaluated the protocol in 4 locations during September 2023. Each community testing day was attended by at least one community member and 1 clinician (ultimately all clinicians were junior doctors).

- Grove Park Carnival 3rd September 2023 11am-4pm
- Glass Mills Leisure Centre 18th September 2023 10am-1pm
- The Vale Medical Centre 19th September 2023 1pm-5pm
- South Lewisham Group Practice 13th September 2023 9am-12pm

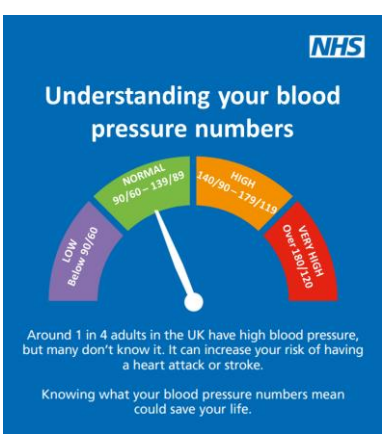
Posters were designed to promote each session. In addition to the protocol script the following assets were utilised during implementation:

1. An infographic showing blood pressure ranges
2. A handout including a BP results summary with key actions and lifestyle guidance

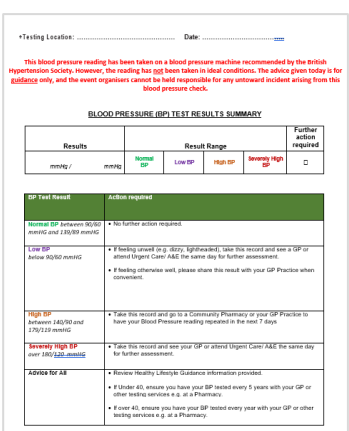
Promotional Posters



BP range infographic



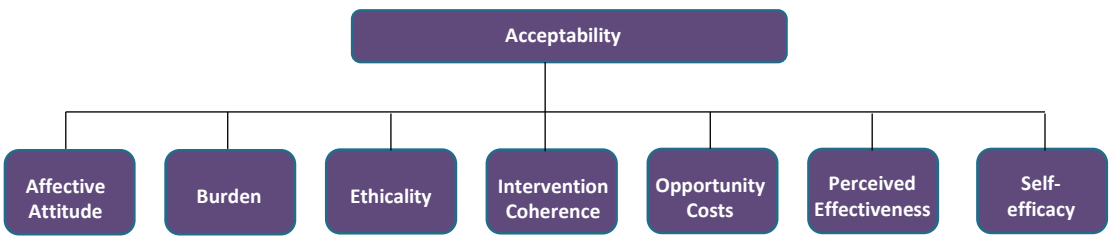
BP testing card



Activity Highlights

Phase 3 – Implement, evaluate and refine protocols continued

At the point of BP testing, residents were asked to evaluate their acceptability of the protocol using a short survey based on the Theoretical Framework of Acceptability (TFA, Sekhon et al. 2017) as an evidence-based model for understanding acceptability of the health interventions.



TFA construct	Definition
Affective Attitude	How an individual feels about the intervention
Burden	The perceived amount of effort that is required to participate in the intervention
Ethicality	The extent to which the intervention has good fit with an individual's value system
Intervention Coherence	The extent to which the participant understands the intervention and how it works
Opportunity Costs	The extent to which benefits, profits or values must be given up to engage in the intervention
Perceived Effectiveness	The extent to which the intervention is perceived as likely to achieve it's purpose
Self-efficacy	The individual's confidence that they can perform the behaviour(s) required to participate in the intervention

To increase accessibility and reduce burden, the evaluation was provided in hard copy rather than asking people to complete digital surveys.

The evaluation survey asked demographic questions with respect to:

- Which SEL borough (or other area) the patient lives in
- Age, ethnicity and gender or low blood pressure
- The last time they had their blood pressure checked
- The blood pressure result recorded during testing with this project.

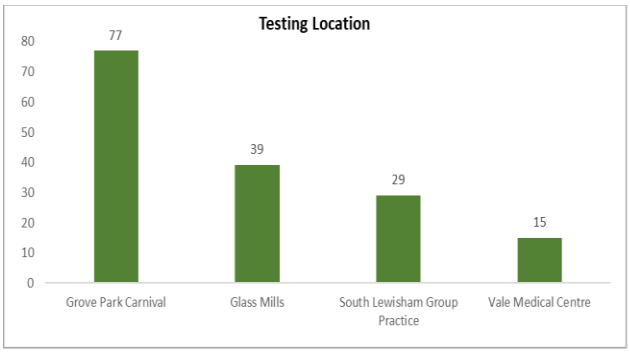
Additional TFA based questions (driven the review of existing insights):

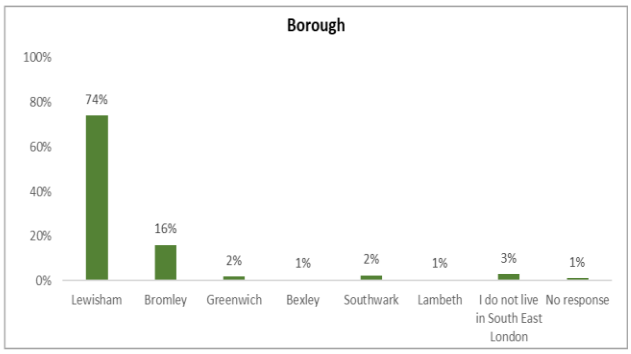
- Did your blood pressure test take place at an appropriate time and place?
- Do you feel your blood pressure tests were accurate?
- Do you feel the language used was sensitive to your cultural or religious needs (if any)?
- Did you feel you were treated with dignity and respect?
- Did you feel you were given helpful education or information about blood pressure and support?
- Do you plan to share your test results with your GP?
- Were you were made comfortable about how the information you shared would be used?
- Do you feel able to take any next steps that you were advised to take for your blood pressure?
- Would you recommend this service to a friend or family member?

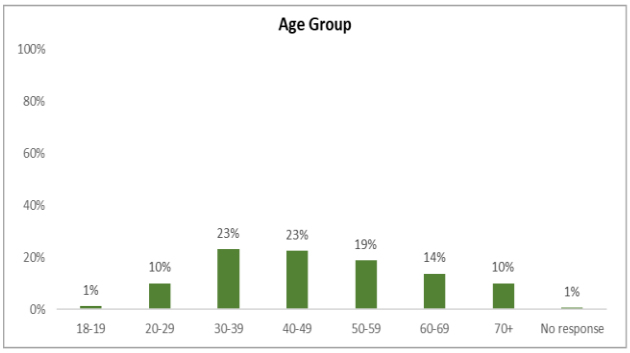
Activity Highlights

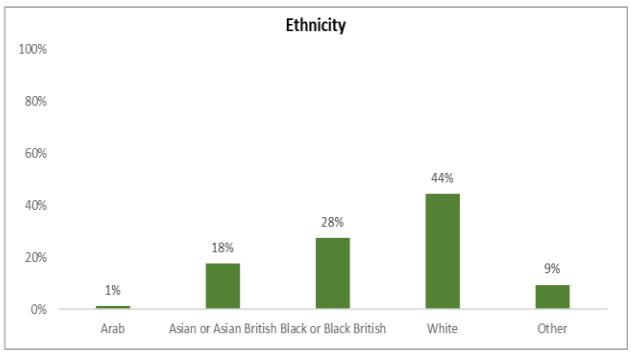
Phase 3 – Implement, evaluate and refine protocols continued

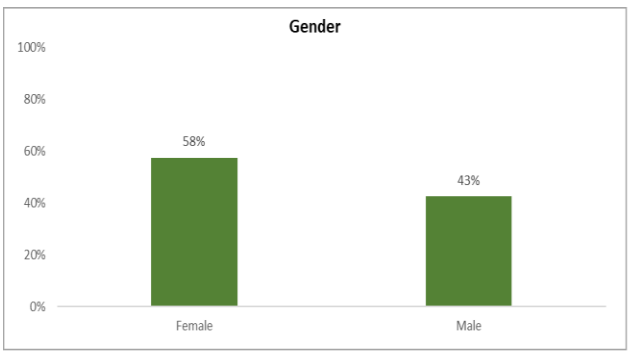
At the point of BP testing, residents will be asked to evaluate their acceptability of the protocol using a short survey based on the Theoretical Framework of Acceptability.

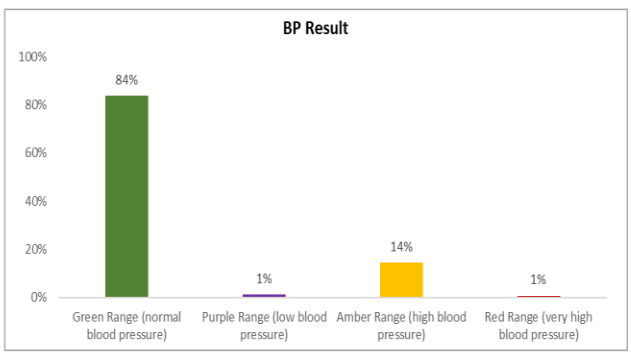


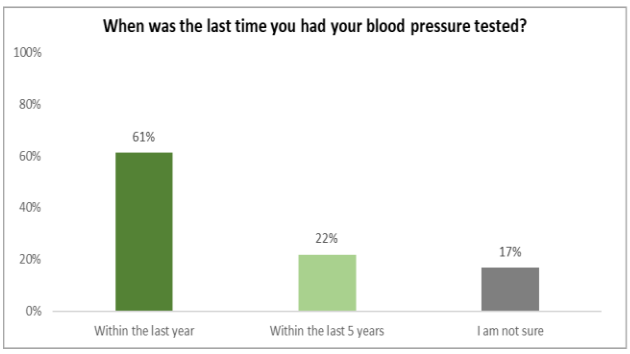


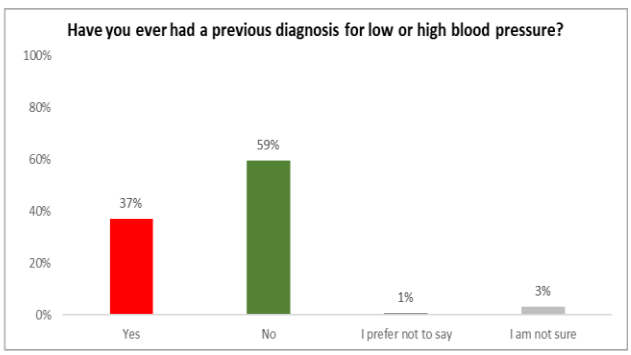








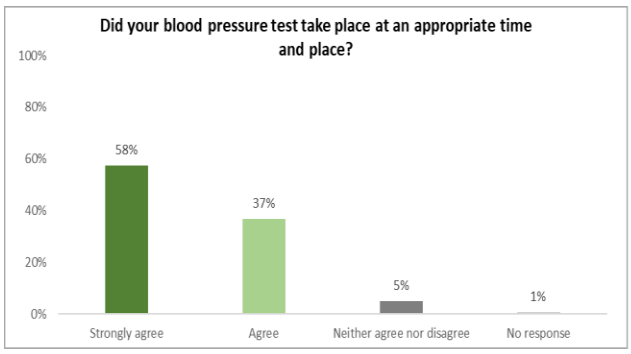


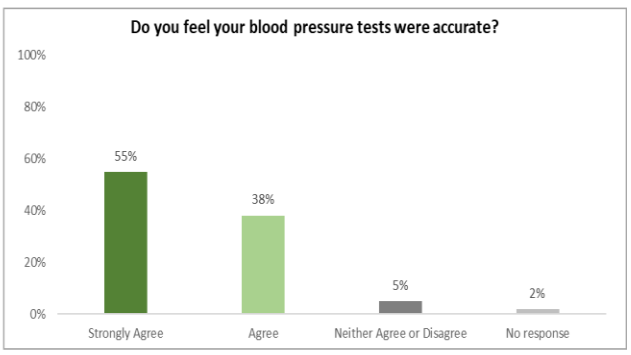


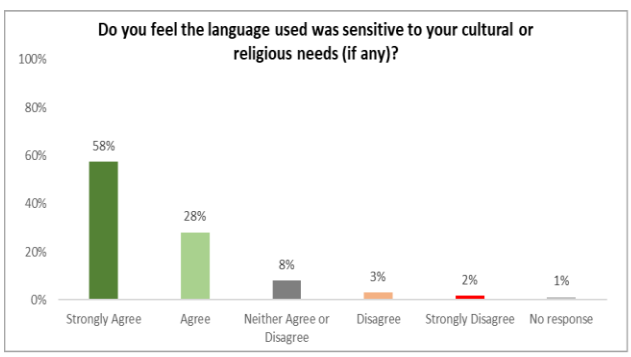
***Note**: the project encountered 1 individual with a red (severely hypertensive) reading at South Lewisham Group Practice. The patient was a Black African male aged 40-50.*

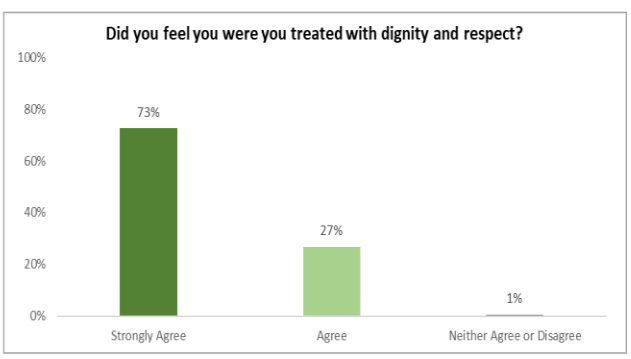
Activity Highlights

Phase 3 – Implement, evaluate and refine protocols continued

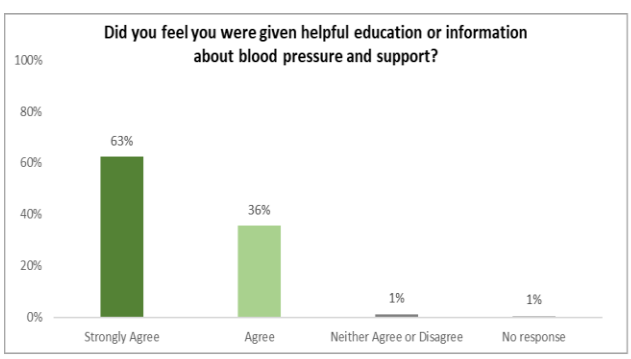


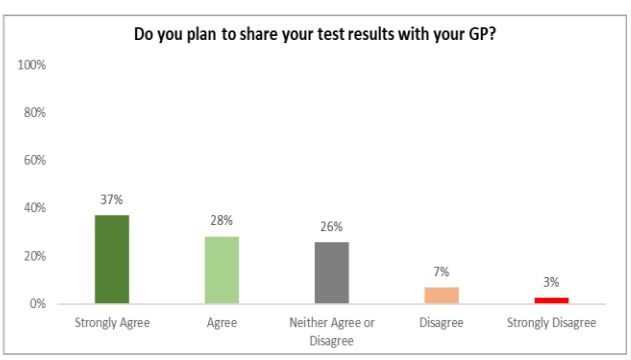


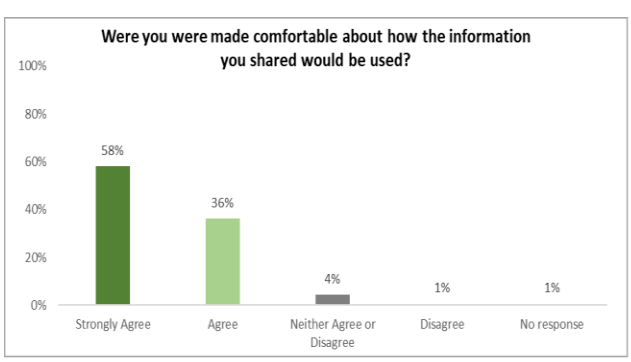


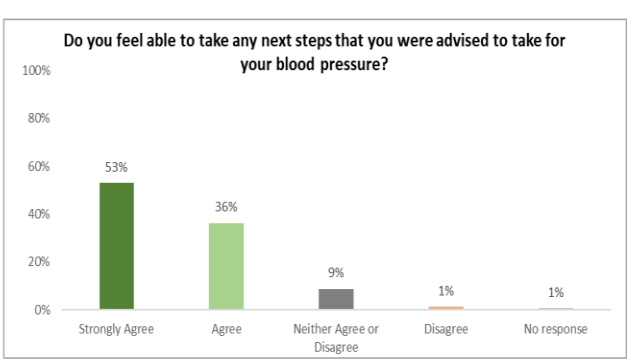


***Note**: 3 out of 8 people who felt that the BP test did not take place at an appropriate place/time had the following BP readings: Red Range (1 male) and Amber Range (2 females). All 3 of them were Black and within the age range of 40-59. Additionally, 8 participants found the language used during the test insensitive to their cultural or religious needs. 7 out of the 8 were females, and they were all from diverse backgrounds (2 Black, 2 Asian, 1 Arab, 1 other, 1 White). Their age varied anywhere between 20-69 years. Despite these concerns, all participants agreed that they were treated with respect and dignity throughout the study.*





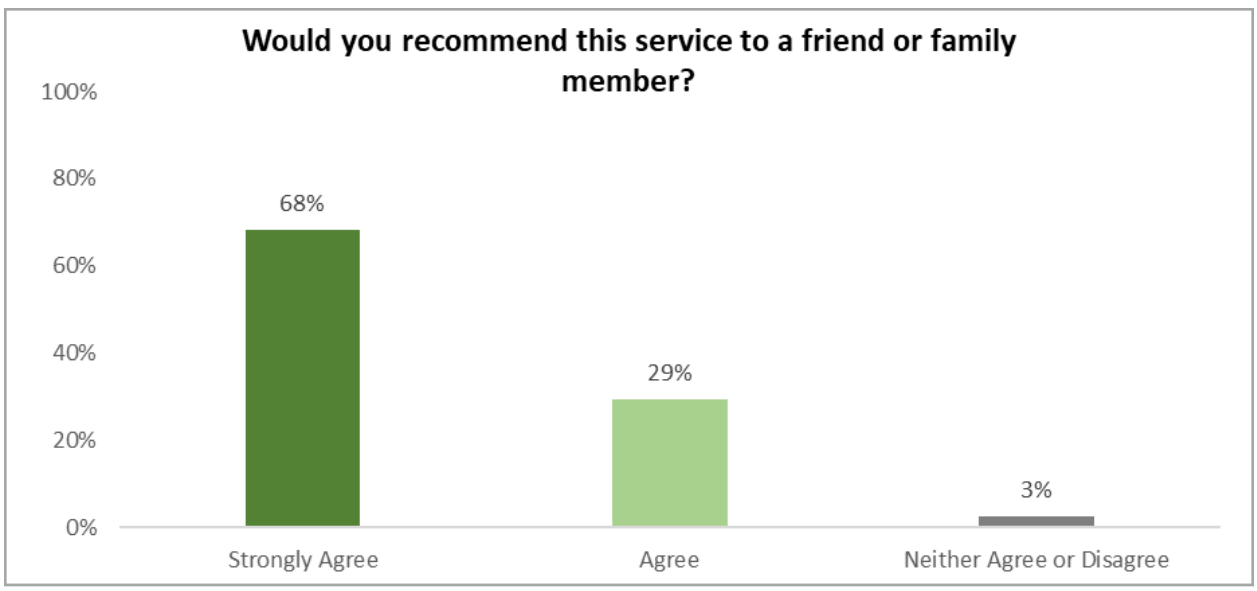




***Note**: All the people who said they would not share their test results with their GP had BP reading in the Green Range, except one whose BP was in the Amber Range. The one person whose BP was in the Red Range responded to sharing their result with the GP as "neither agree or disagree" however we note that this person had a same-day appointment made for them their GP and their result was shared. One person in the Purple Range responded "disagree" to being able to take any next steps as advised for their BP, but they agreed to sharing their results with their GP.*

Activity Highlights

Phase 3 – Implement, evaluate and refine protocols continued



We captured **feedback from 9 testers (including both community members and PCN colleagues)** to evaluate their experiences of taking part in the testing days.

They were asked the following questions:

Patient-focussed questions

- What are you overall reflections about how patients felt taking part? Any particular individuals or stories that stand out?
- Is there anything that you felt was particularly helpful for patients?
- Is there anything that could have helped patients further?

Tester-focussed questions

- How would you describe your overall experience taking part in the testing days?
- Is there anything in particular that helped you prepare for/ participate in the testing days?
- Is there anything that could have helped you prepare for/ participate in the testing days?

Lessons Learned

Phase 4 – Finalise protocols, report and share

LESSONS LEARNED FOR PROTOCOL IMPLEMENTATION

Participant engagement

- Asking residents 'when was the last time you had your BP checked?' was a successful route to participation. Asking 'would you like your BP checked?' was much less successful in motivating participation.
- Having the option of either participating in a short (BP test only) or long (BP test + education) intervention was received positively by participants. Respecting the participants choice potentially meant they happily and willingly participated. Note: the majority of participants asked for the longer intervention which took on average approximately 15-20 minutes.
- The majority of people who did not participate reported having recent checks (at home or via the health service) or were in a rush (the latter reason was particularly true within the GP practice context).
- For those who already had their BP tested previously due to a diagnosis, a re-check helped revaluate unhealthy and reinforce healthy habits.
- Rapport building with the patients should continue to be emphasised and encouraged. Clinicians reported a benefit of having more time to have in-depth discussions with patients. This often included discussions about other health concerns e.g. around healthy weight or diabetes.
- Participants were very enthusiastic about engaging with both community members and clinicians even shared personal information with them due to the empathy and trust built. Dealing empathetically and tactfully with the emotional discomfort that follows a difficult diagnosis also proved critical.
- Language for some proved to be a barrier. Evaluating if there is a workaround for those, although difficult, might be helpful.
- Greater outreach and promotion of practice-based testing prior to the event will increase awareness, and thereby participation.

Tester Identity and capability

- Provide the protocol in a summarised version e.g. a process map with decisions points, key messages and important steps (this has been actioned).
- Testers should continue to be provided time to familiarise themselves with the protocol and practice via role play. Having time to build rapport amongst themselves was also positively received as it enabled collaboration and knowledge sharing.
- The presence of a clinician enhanced credibility for some but not all participants, however it provided additional confidence and assurance for community testers.
- Community member involvement was well accepted by participants and should be promoted. There were 1-2 exceptional instances where participants requested support from a clinician which was accommodated.
- Inclusion of cultural sensitivity training would be helpful for both community members and clinicians.

Lessons Learned

Phase 4 – Finalise protocols, report and share

LESSONS LEARNED FOR PROTOCOL IMPLEMENTATION

Location and facilities

- Conducting testing in medical centres proved extremely helpful (more than other locations) in terms of organisation and access to resources. For instance, practice staff supported with inputting test data into patient records. Further collaborations with practices for implementing the protocol would be beneficial.
- Conversely, there was a greater number of and diversity within participants in other locations. Future locations should be selected for the highest possible footfall and diversity in potential participants; however, this would be better supported with remote access for clinicians to input test results to local practice databases.
- Having a community member support the use of a BP 'pod' within a GP practice (where available) was appreciated by participants; with additional value provided by the presence and support of practice staff. This also provided an educational opportunity for patients for future use. Typically, pods used were not made available to patients without appointments. This issue was raised with South Lewisham Group Practice and they have subsequently committed to changing this policy and to make the pod more visible to patients and accessible at any time within the reception area.

Critical Cases

- Perseverance and persistence, in the form of practical and emotional support, for those struggling to accept their difficult diagnosis is critical for engagement within the protocol and compliance with advice and guidance.

Evaluation and Data

- Ensuring that testers give participants privacy when completing evaluation forms is critical to avoid/ reduce self-reporting bias. If the participant needs support, it is important to ensure this is provided by another team member.
- The language used in surveys should have great clarity and the use of words that might have ambiguous meanings or a negative connotation should be avoided.
- Sharing of test results with the GP should be encouraged, including where test results are within the health range as the majority of people with such readings reported being less likely to share their results with their GP.

Project support

- Having motivating speakers and presence from the commissioning team at both co-design workshops and testing days provided great encouragement to clinicians and community members.

Lessons Learned

Phase 4 – Finalise protocols, report and share continued

LESSONS LEARNED FOR PROJECT DELIVERY

Protocol development & Co-production approach

- Continued prioritisation of literature review usage and insights from relevant projects as a foundational step in protocol and evaluation design can help streamline future projects and ensure they are built on a strong knowledge base.
- The project steering group should be recognised as a valuable resource for identifying key stakeholders and resources.
- Selecting members for the TFG to have a good mix of both community members and clinicians provided a strong foundation for the project.
- Encouraging ongoing opportunities for stakeholders to learn about how various interventions are developed can increase their understanding of the project and also promote their active involvement.
- Maintaining the co-production sessions as a safe space for the various stakeholders to voice their opinions and engage in discussions leads to a more comprehensive and well-rounded approach to addressing aspects of the project.
- It is important to continue examining and clarifying expectations regarding testers' support for participants and post-care responsibilities.

Fidelity & Governance

- For future projects, it may be beneficial to suggest increased fidelity to the intervention protocol to improve evaluability.
- Continually providing support that allows the project to move forward efficiently is important. This should be balanced with the need for clear governance.
- It should be ensured that all the stakeholders, including clinicians and project team members, fully understand the project's limitations, responsibilities, and risk-mitigation measures from the outset. This must include ensuring that indemnity arrangements are confirmed in advance of implementation.
- Open and transparent communication channels should be maintained throughout the project's duration.
- Future healthcare projects should proactively address potential liability issues and ethical concerns during the planning and development stages to avoid last-minute challenges.

Capacity building

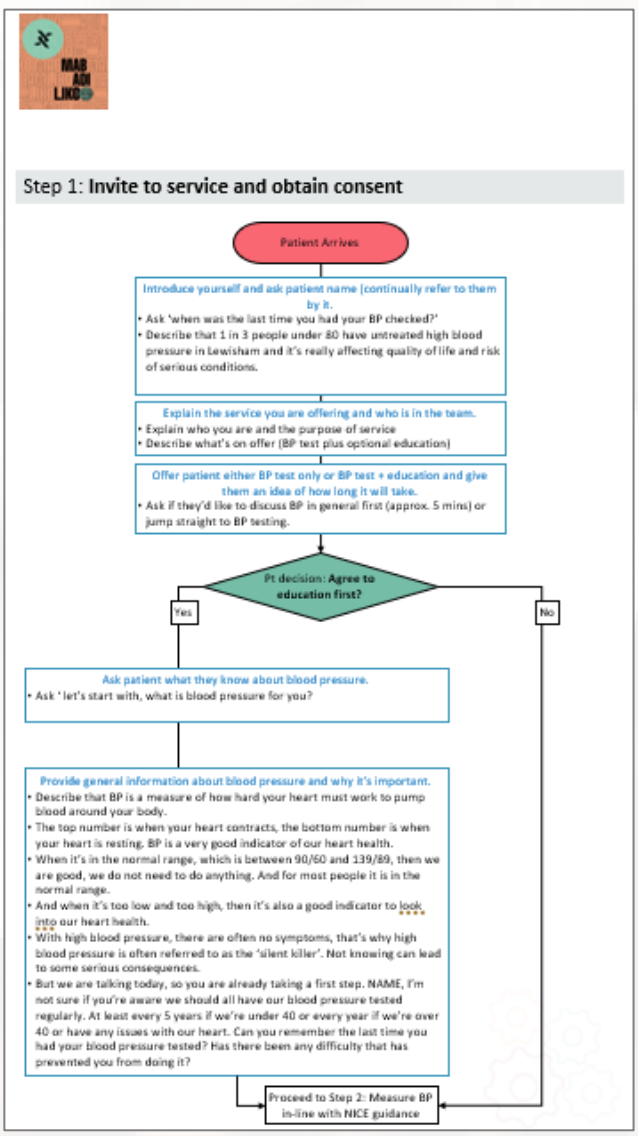
- Training and development for testers should be emphasised and encouraged.
- Dialogue amongst all project stakeholders should be encouraged to kickstart conversations about various issues and to promote more initiatives.

Final Deliverables

Phase 4 – Finalise protocols, report and share continued

Based on feedback from both participants and those implementing, the final updates to the protocol were made. Final protocols are therefore provided with the inclusion of a 'decision tree' process map with summarised prompts and additional examples of illustrative script.

Decision Tree/ Prompt Map



Step 1: **Invite to service and obtain consent**

Patient Arrives

Introduce yourself and ask patient name (continually refer to them by it.
- Ask 'when was the last time you had your BP checked?'
- Describe that 1 in 3 people under 80 have untreated high blood pressure in Lewisham and it's really affecting quality of life and risk of serious conditions.

Explain the service you are offering and who is in the team.
- Explain who you are and the purpose of service
- Describe what's on offer (BP test plus optional education)

Offer patient either BP test only or BP test + education and give them an idea of how long it will take.
- Ask if they'd like to discuss BP in general first (approx. 5 mins) or jump straight to BP testing.

Pt decision: **Agree to education first?**

Yes

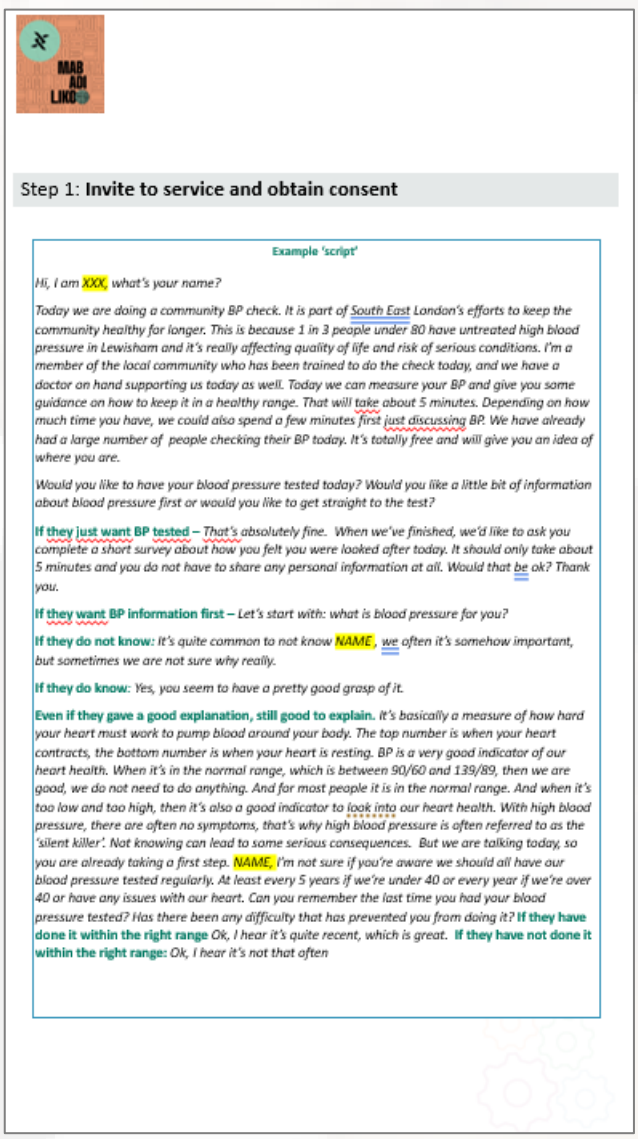
No

Ask patient what they know about blood pressure.
- Ask ' let's start with, what is blood pressure for you?

Provide general information about blood pressure and why it's important.
- Describe that BP is a measure of how hard your heart must work to pump blood around your body.
- The top number is when your heart contracts, the bottom number is when your heart is resting. BP is a very good indicator of our heart health.
- When it's in the normal range, which is between 90/60 and 139/89, then we are good, we do not need to do anything. And for most people it is in the normal range.
- And when it's too low and too high, then it's also a good indicator to look into our heart health.
- With high blood pressure, there are often no symptoms, that's why high blood pressure is often referred to as the 'silent killer'. Not knowing can lead to some serious consequences.
- But we are talking today, so you are already taking a first step. NAME, I'm not sure if you're aware we should all have our blood pressure tested regularly. At least every 5 years if we're under 40 or every year if we're over 40 or have any issues with our heart. Can you remember the last time you had your blood pressure tested? Has there been any difficulty that has prevented you from doing it?

Proceed to Step 2: Measure BP in-line with NICE guidance

Example illustrative script



Step 1: **Invite to service and obtain consent**

Example 'script'

Hi, I am XXX, what's your name?

Today we are doing a community BP check. It is part of South East London's efforts to keep the community healthy for longer. This is because 1 in 3 people under 80 have untreated high blood pressure in Lewisham and it's really affecting quality of life and risk of serious conditions. I'm a member of the local community who has been trained to do the check today, and we have a doctor on hand supporting us today as well. Today we can measure your BP and give you some guidance on how to keep it in a healthy range. That will take about 5 minutes. Depending on how much time you have, we could also spend a few minutes first just discussing BP. We have already had a large number of people checking their BP today. It's totally free and will give you an idea of where you are.

Would you like to have your blood pressure tested today? Would you like a little bit of information about blood pressure first or would you like to get straight to the test?

If they just want BP tested – *That's absolutely fine. When we've finished, we'd like to ask you complete a short survey about how you felt you were looked after today. It should only take about 5 minutes and you do not have to share any personal information at all. Would that be ok? Thank you.*

If they want BP information first – *Let's start with: what is blood pressure for you?*

If they do not know: *It's quite common to not know NAME, we often it's somehow important, but sometimes we are not sure why really.*

If they do know: *Yes, you seem to have a pretty good grasp of it.*

Even if they gave a good explanation, still good to explain. *It's basically a measure of how hard your heart must work to pump blood around your body. The top number is when your heart contracts, the bottom number is when your heart is resting. BP is a very good indicator of our heart health. When it's in the normal range, which is between 90/60 and 139/89, then we are good, we do not need to do anything. And for most people it is in the normal range. And when it's too low and too high, then it's also a good indicator to look into our heart health. With high blood pressure, there are often no symptoms, that's why high blood pressure is often referred to as the 'silent killer'. Not knowing can lead to some serious consequences. But we are talking today, so you are already taking a first step. NAME, I'm not sure if you're aware we should all have our blood pressure tested regularly. At least every 5 years if we're under 40 or every year if we're over 40 or have any issues with our heart. Can you remember the last time you had your blood pressure tested? Has there been any difficulty that has prevented you from doing it?* **If they have done it within the right range** *Ok, I hear it's quite recent, which is great.* **If they have not done it within the right range:** *Ok, I hear it's not that often*

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- Wider commissioning/ steer group members.

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Transforming the dialogue between communities and the health and research systems