

Toolkit for Cardiac Health in Dorset

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Background

This toolkit follows from the cardiac Health Needs Assessment (HNA) published by Public Health Dorset and NHS Dorset in January 2025. The key finding from this HNA was differential experiences for those living in the most deprived areas across the cardiac care system, leading to much higher CVD mortality rates in the most deprived areas.

Arising from that report were the following recommendations:

- 1) Improve targeting, coverage and quality of NHS health checks:
 - a) Improved targeting of NHS health checks towards those living in more deprived areas.
 - b) Expand coverage of GP-delivered NHS health checks so that every eligible patient in Dorset can access them.
 - c) Ensure quality of GP-delivered NHS health checks.
- 2) Increase community engagement supported by health literacy training for clinical staff and decision makers to address barriers to care.
- 3) Implement library-lent blood pressure cuffs.
- 4) Target smoking cessation efforts towards those in routine and manual job roles.
- 5) Address wider determinants of CVD, including air quality and socioeconomic factors.
- 6) Further investigations into high rate of elective interventions to ensure resource efficiency and equity.

Full details of the recommendations are included as appendix 2.

The resources below are intended to aid in the implementation of these recommendations. They fall into three categories: First, those focused on how to work with underserved groups to better target health and healthcare offers to those most in need, alongside the results of a local report on DNAs that has already done some work into barriers to care. Second: clinical resources about best practice in the management of CVD. Third: resources specifically on the setting up of blood pressure cuff lending from libraries.

1. Community engagement, co-production and health literacy resources

Dorset Health Literacy Training

Dorset has an active health literacy community. Regular training is delivered through Public Health Dorset, and there is an ongoing community of practice for anyone who has attended training or is involved in improving health literacy in Dorset. More information can be found here: [Introducing health literacy – Health Inequalities](#)

For information on upcoming training courses or bespoke training, contact Paul Iggulden, Consultant in Public Health, Public Health Dorset (paul.iggulden@dorsetcouncil.gov.uk).

Point of Care Foundation's Experience-based co-design toolkit

The Point of Care Foundation have developed a toolkit gives a step-by-step guide to improving patient experience of health care using a technique called experience-based co-design (EBCD): [EBCD: Experience-based co-design toolkit - Point of Care Foundation](#). Their toolkit includes videos from staff who have been involved in this process, explanations of the stages and downloadable resources for anyone wanting to carry out this kind of quality improvement. It also details the kinds of benefits that can be gained from EBCD.

NHS England Co-production resource toolkit

NHS England has compiled resources on how to co-produce quality improvements together with patients: [NHS England » Co-production resource toolkit](#)

NHSE also has a page explaining and describing the benefits of co-production: [NHS England » Co-production](#)

Dorset DNA Project findings

Local qualitative research has been carried out interviewing people who missed medical appointments to discover the reasons why: [We did not ask, but we are now! – Health Inequalities](#)

The research found that issues with the following areas commonly caused barriers to care:

- 1) Communication
- 2) Discrimination/ Inequity of Access
- 3) Expectations
- 4) Appointment booking
- 5) Online healthcare
- 6) Public transport
- 7) Continuity of care

The summary [report](#) describes in more detail how each of these creates barriers, and gives patients' suggestions about how they could be overcome. The full report can be requested from Kelly Vaughan (kelly.i.vaughan@dorsetcouncil.gov.uk).

2. Clinical resources

NHS Health Checks information for GP practices

For GP practices wishing to sign up to deliver NHS Health Checks, more information can be found here: [NHS Health Checks - Public Health Dorset - Dorset Council](#)

Dorset Primary Care Training Hub

OurDorset has a Primary Care Training Hub which includes a range of resources including recorded webinars on CVDPREVENT: <https://primarycaredorset.co.uk/education-development/>

UCLPartners Proactive Care Frameworks

UCLP proactive care frameworks aim to assist clinicians in restoring routine care by prioritising patients at highest risk of deterioration. They contain pathways that mobilise the wider workforce and digital/tech, to optimise remote care and self-care, releasing clinician capacity and helping manage workload in practices. Frameworks exist for the management of several CVD risk factors:

[The Proactive Care Frameworks - UCLPartners](#)

UCLP has also collated a set of resources on CVD for clinicians: [CVD resources - UCLPartners](#)

CVDPREVENT Audit findings

The latest CVDPREVENT audit contains data on CVD prevention in primary care across the UK, focusing on inequities in care. This may be useful for clinicians and practices trying to correct these inequities in their patient population. It also contains recommendations for ICBs. [CVDPREVENT Fourth Annual Audit Report](#)

3. Blood pressure cuff lending resources

Blood pressure cuff lending in libraries

A report of the evaluation carried out by Somerset Council in 2023 is included as Appendix 1. For any questions about the implementation of this programme in Somerset, contact Dr Orla Dunn, Consultant in Public Health at Somerset Council (Orla.Dunn@Somerset.gov.uk)

When alongside the BP monitor, postcards or leaflets explaining Blood Pressure @ Home could be given out to enable cuff borrowers to directly inform their GP of measurements. Possible leaflets for this already exist here: <https://staywelldorset.nhs.uk/campaigns/bpathome/#leaflet>.

Appendix 1: Evaluation of Somerset Blood Pressure Monitoring Kit Loan Scheme



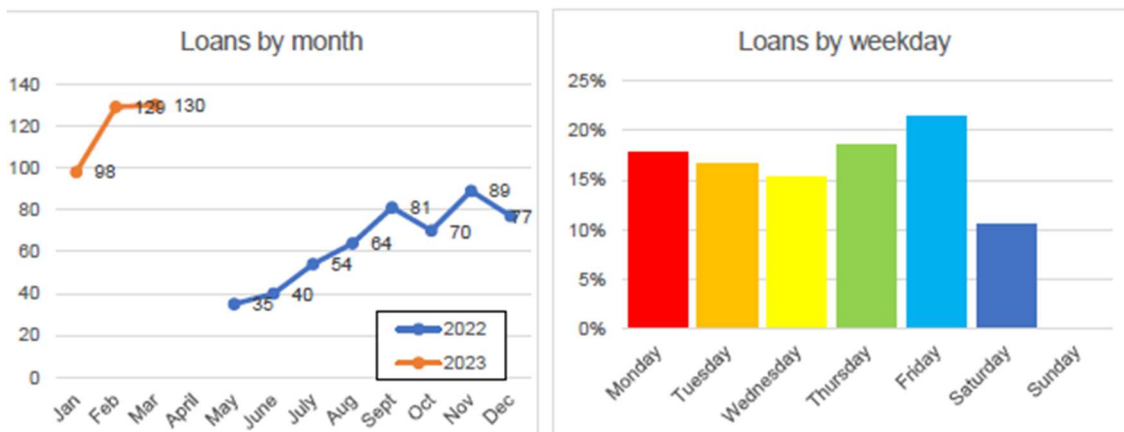
Update: 01/04/2023

Somerset Blood Pressure Monitoring Kit Loan Scheme

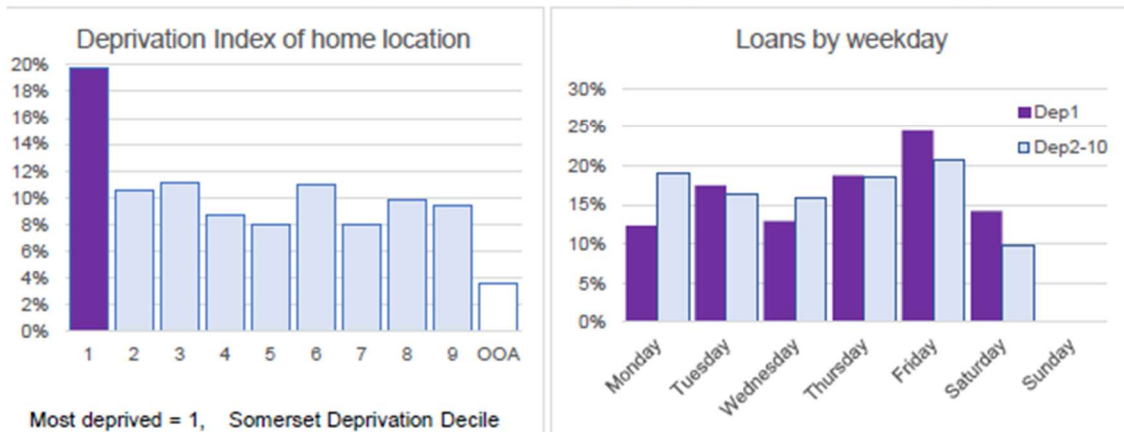
The Somerset Blood Pressure Monitoring Kit Loan Scheme has placed 250 BP monitors across all Somerset libraries to be loaned for free by any library member. Libraries were chosen for the site of this intervention due to their public acceptability, accessibility and as they are co-located with a number of other health initiatives like NHS Health Check programme, activity monitors, and many social clubs and classes.

Since May 2022, 680 different people have borrowed a BP Monitoring Kit across 869 loans. The scheme is continuing to increase in popularity and currently makes about 30 loans a week.

The most popular day of the week for loans is Friday but all days have reasonable activity levels. Saturday is the least popular day for loans, however given fewer libraries open on Saturday and for shorter opening hours this is not too surprising and this opportunity is still making a valuable contribution to access. No Somerset libraries are open on Sunday.

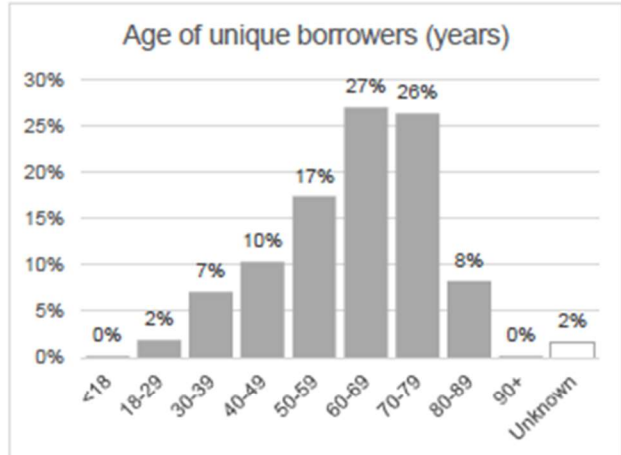
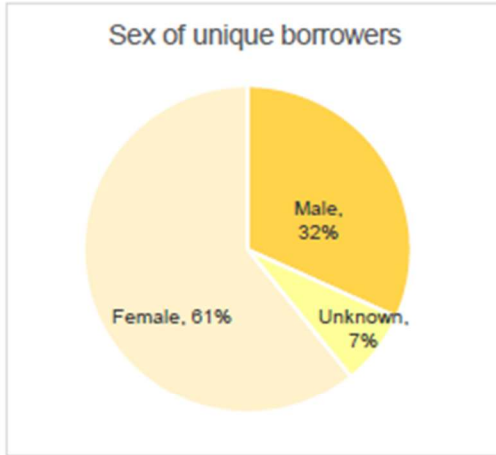


Somerset libraries are often sited in urban areas of greater deprivation which makes them ideal locations for initiatives aiming to reach CORE20 populations. Our scheme had about twice the borrowing rate to people living in CORE20 areas, shown in purple in graph below and who are living Somerset, in any of the most deprived fifth of locations in England. Part of the reason for this appeal may be ability to access monitors at the weekend. We see a trend for those from our most deprived areas to be more likely to borrow on Saturday compared to the rest of the population.



Borrower Characteristics

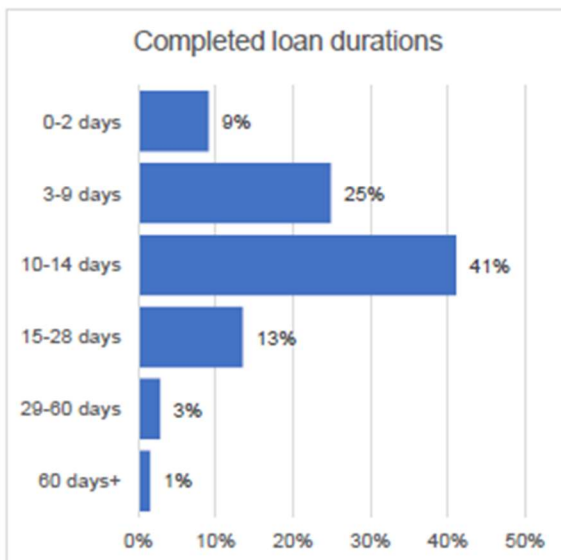
Overall, the scheme reaches about twice as many female as male borrowers. Although there may still be a useful impact on males from female borrowers, as we know often borrowers are sharing machines around and encourage others to test themselves. Almost two thirds of borrowers are 60 years or over at the time they first borrowed a kit.



Ethnic category is not a mandatory category when borrowers register for a library card and is only present on about two-thirds of records. Where recorded, almost 2.5% of borrowers are from minority ethnic groups which is slightly more than expected in the Somerset population.

Just over half of our borrowers lived with a mile of the library they borrowed from.

There were 238 (38%) unique borrowers that joined the library on the same day as they (first) borrowed their BP kit. This may be as they were alerted to the kits on the day they joined or we think more likely that they joined for the purpose of borrowing a kit.



The standard loan length is 14 days and 4 out of 5 of loans are returned within this time. A two week loan period seems to work well. There were 75 loans renewed at least once within the same borrowing period. About 87% of monitors are returned within their original or extended loan period and about 13% returned late.

About 1 in 5 borrowers came back to borrow monitors for another loan period: The most prolific for 10 separate loan periods!

We have likely lost 5 monitors which have not been returned and are overdue for return by more than four weeks.

Library data borrower data has been used for evaluation. Borrowers have also been asked to share their stories.

Logistics, costs and effectiveness

The Somerset Blood Pressure Monitoring Kit loan scheme was established in May 2022 with just over 200 monitors initially placed across all libraries in Somerset with about 50 held in reserve to top up locations based on popularity and losses. This is a level of about 1 per 2000 of the local population. Having at least some monitors in each library location made for a simpler promotion message.

The scheme was funded by the Contain Outbreak Monitoring Fund monies in recognition of the risk of poorer COVID outcomes for those with hypertension. Somerset local authority has a population of approximately 560,000 and an estimated 48k adults with undiagnosed hypertension. We have one of the highest rates of recorded hypertension in England.

We used model / brand A&D UA-651SL supplied by www.pmsinstruments.co.uk although other suitable alternatives exist. A key feature of this model was a bag so you can put all the recording, information bits etc in, not just a cover or no bag. This monitor can also potentially pick up pulse irregularities which might indicate atrial fibrillation and we felt worth the slight increased cost over more basic models. It is worth thinking about some large cuffs as well and getting these on the catalogue separately as we hear GPs really struggle with cuffs for larger patients.

Each kit comprised of the bag, monitor, instruction sheet, manufacturers instructions, blank recording sheets. We used a record sheet modelled on one used in primary care, other side demographic data – and also promoted where some GPs prefer electronic return of BP data. At the start of the scheme we included some feedback questionnaires. We have now also included some referral cards for users to give away to other friends or family to promote the scheme.

Overall cost to set up the scheme for 250 monitors was approx. £9k in 2022. This was based on costs including: monitor, bag, printing and initial library staff prep costs. We needed to allow about six weeks for monitors to be registered onto the library systems.

We initially estimated an average of 12 loans per monitor lifetime of five years reaching 6000 people at a cost of about £3.50 per loan (including 50p battery costs). In the first year we have achieved four loans per monitor so this may under estimate numbers reachable and loan costs may be lower.

There are on-going costs for batteries. At present we use single use high intensity LR6 batteries. Manufacturer guidelines suggest this should provide approx 700 inflations per set. We are averaging approximately four loan cycles per four battery set. We found initial demand for batteries from libraries was relatively high but settled as more loans were based on the newer higher capacity batteries. We are investigating using rechargeable batteries in our most popular locations.

For many reasons we did not want to put library staff in the loop returning BP readings to GPs. We have no way of knowing how many people have passed on their readings to their GP. We are working on a way to try and code and capture return of paper monitoring sheets to GP practices although this will not capture readings returned via website apps which we are also trying to encourage as having calculated averages is easier for GP staff.

Monitors are not recommended to need calibration during their lifespan of five years but there is a need to check for obvious damage and plan for on-going replacements. We agreed a post loan cleaning SOP and publicised this to each library.

We estimate about 10% of project borrowers, 600, may go on to be diagnosed with hypertension. Estimates of the numbers needed to treat to prevent deaths, heart attacks and strokes means this may be a relatively low cost way to improve population health.

**NNT Hypertensive medication five years 125
to prevent a death
67 to prevent a stroke
100 to prevent a heart attack (NNT.com)**

Promotion

We supplied posters to promote the monitors and also provided a graphic image to use in libraries which had a display screen.

Many of our library staff took the initiative to create some of their own images to promote use of the monitors.

We promoted the scheme to GPs via the LMC newsletter and also emailed graphics for them to use on practice display screens.

It was useful to have a library staff FAQ page and feedback loop both ways inc library staff meetings. We also had a central store for documentation so library staff could reprint easily.

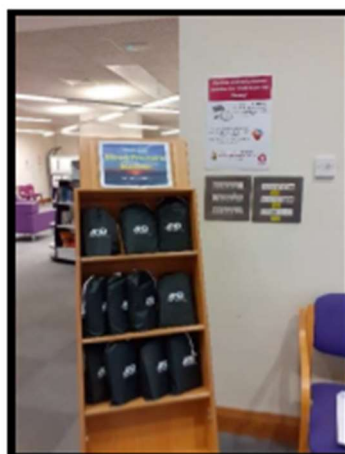


We have introduced a referral card placed in the bags which borrowers are encouraged to pass on to other friends or family who may also be interested in borrowing a monitor.



Libraries often generated their own display stands in prominent positions.

A video showing correct use of the monitor was useful to avoid library staff being asked to advised on measurement technique. At the start our library staff were often asked to take blood pressure measurements.



What we have termed the 'Joanne Effect' shows the impact of some simple changes in promotion of the monitors. Moving the monitors to a display near the library entrance boosted what had been slowly increasing loan numbers at one of our sites.

We are lucky in Somerset to have a number of other health initiatives running in our libraries which enable cross referral and amplification of effects These include NHS Health Checks, Wellbeing zone, loan activity monitors and Health Coaches.



Feedback

Anecdotal feedback from GP practices highlighted the difficulty for them to track and ensure return of monitors they loaned to patients such that many monitors were not returned. In comparison our library stock appear to have been minimally depleted through loss and breakages in the first year.

In summer 2022 we conducted an evaluation of the experience of some of the early borrowers:

Very valuable experience. I would not have thought of taking my own blood pressure (unless I needed to see a doctor). I saw these kits right by the exit/entrance to the library and thought I'll borrow one. It has made me think of buying a kit and one of my own.
VERY GRATEFUL

I checked with reception and she said yes, you just borrow it like a book and I was completely amazed. So I got someone to look after my grandson whilst I checked it out. That was really, really easy.

I had a bit of awareness that I needed to do a bit of a check and it was just a perfect opportunity and I was delighted and amazed to see them in the library.

So it was just a really brilliant opportunity and obviously short circuited the wait through the GP practice which it was clearly going to be a very long time.

Well, it was lucky I did because as you know everything's in chaos really with surgeries and whatever. But then about a week after borrowing it, I had a phone call from my GP to have a phone call consultation and she wanted to know recent blood pressure readings and whereas nobody had asked me to do it, to do a reading, I was able to give her readings from what I'd recorded.

I mean I, I got the result after borrowing from um the blood pressure machine from the library. I have bought one.

I was borrowing the machine ...three or four weeks after the date to have a check for myself to see if the tablets ... worked and later on as I found out I use that information to pass to the doctor.

The scheme was shortlisted for a Libraries Connected Health & Wellbeing Award, 2023. <https://www.librariesconnected.org.uk/page/health-wellbeing-award-2023-shortlist>

We are happy to answer additional questions about the operation of the scheme.

Please email publichealth@somerset.gov.uk for more information or additional questions.

Dr Orla Dunn, Consultant in Public Health, Somerset Council (2023).

Appendix 2: Details of recommendations

1. Improve targeting, coverage and quality of NHS Health Checks

1a. Improved targeting of NHS Health Checks towards those living in more deprived areas

NHS Health Checks have the potential to widen health inequalities if not properly targeted to those in the most deprived areas. All providers of NHS Health Checks need to actively target their checks at those living in the most deprived areas. Community engagement and health literacy to improve accessibility of services will be key to achieving this (see recommendation 2 and the resource toolkit accompanying this HNA). In order to check achievement against this goal, it would be valuable if deprivation charts on the Dorset NHS Health Checks dashboard were age standardised.

Insights on how to improve uptake in those less likely to attend could also be gained from looking at lists of non-responders. Sarah Long, who is responsible for NHS Health Checks in Public Health Dorset is willing to work with GP surgeries or PCNs who would like to improve their uptake by looking at non-attender lists (sarah.long@dorsetcouncil.gov.uk).

Actions:

- Dorset ICB to increase health literacy training for clinicians and decision makers
- PCNs and Dorset ICB to increase co-production work to identify barriers to access, and enact learnings from previous work to understand barriers to access
- PCNs or practices wishing to understand non-responders to contact Sarah Long
- Public Health Dorset or Dorset ICB to age standardise health checks data by IMD to provide a better understanding of success at targeting more deprived areas

1b. Increased coverage of GP provided NHS Health Checks

NHS Health Checks should be accessible to everyone in the Dorset ICB population who is eligible for one. Dorset should aim for every GP surgery to be signed up to offer NHS Health Checks. Dorset PCNs, Dorset ICB and Public Health Dorset will need to work with practices to address the barriers they face in this.

Actions:

- Dorset ICB and Public Health Dorset to work together to identify and address barriers to GP NHS Health Check delivery, which could include improved incentives

1c. Ensuring quality of NHS Health Checks

In order to maximise benefit from the NHS Health Checks that are carried out, GP practices should ensure they are carrying them out using best practice. This includes:

- Use of the locally recommended invitation letters which have been written with health literacy in mind, which are sent out with the NHS Health Checks [Service Specification](#).
- Use of point of care cholesterol testing that enables the whole NHS Health Check to be completed in one appointment rather than needing a follow-up appointment.
- Including a clear communication of risk to the patient during the appointment based on measurements and questionnaire answers.
- Ensuring measurements that indicate increased risk are followed up appropriately.

For more resources on clinical management of CVD risk factors, see the resource toolkit accompanying this HNA.

Actions:

- GP practices to ensure they are delivering NHS health checks using best practice
- Public Health Dorset to provide assurance on this

2. Community engagement and health literacy training

To remove the specific barriers that underserved communities face when accessing our services in Dorset, including NHS Health Checks, clinicians and decision makers need to speak to individuals from these communities to find out what these barriers are.

Health literacy training can build skills and confidence in engaging with communities and enacting change. Dorset has an active health literacy training community with an ongoing community of practice (25). Training in Health Literacy gives clinicians and decision-makers skills in how to design systems and communication that are most likely to be accessible for the public. Paul Iggulden can be contacted for information on planned and bespoke health literacy training (paul.iggulden@dorsetcouncil.gov.uk). For more resources on community engagement and co-production, see the resource toolkit accompanying this HNA.

Actions:

- PCNs and Dorset ICB to increase health literacy training for clinicians and decision makers
- Public Health Dorset to actively reach out to offer health literacy training to clinicians

3. Implement library-lent blood pressure cuffs.

A low cost and effective intervention to empower those from more deprived areas to monitor their own blood pressure would be to stock libraries with BP cuffs for lending. Without this, Dorset's current Blood Pressure @Home scheme has the potential to increase health inequalities. Somerset Council has already demonstrated that BP cuff lending is effective in reaching more deprived communities (32). Monitors could be lent alongside a leaflet about Blood Pressure @Home, to enable borrowers to directly report their measurements to their GP. LiveWell Dorset already has contact with libraries across Dorset and could lead on the implementation of this. For more information on how this was implemented in Somerset, see the resource toolkit accompanying this HNA.

Actions:

- LiveWell Dorset to scope out implementation of library lent BP cuffs, integrated with the existing LiveWell Dorset offer

4. Targeting smoking cessation efforts towards routine and manual workers

This group appears to show an uptick in smoking rates. Pre-existing smoking cessation efforts coordinated by Public Health Dorset and LiveWell Dorset need to actively target individuals in working in routine and manual roles to reverse this trend. This may involve innovative solutions, such as running smoking cessation events in community hubs frequented by target groups such as cafes, restaurants, pubs, hairdressers/barbers, etc.

Actions:

- LiveWell Dorset to scope out new approaches for targeting deprived areas and routine and manual workers, which might include applying for new funding for innovative approaches

5. Tackling wider determinants of CVD

All local system partners have a role in tackling the wider determinants of CVD. Approaches to this will be varied and will depend on the roles of the organisation involved. For example, efforts to

improve air quality, community nutrition programmes such as the Friendly Food Club, antiracism strategies and housing improvements are all likely to improve CVD outcomes for our local communities.

Actions:

- All system partners to consider what role they might have to play in reducing CVD, and to implement activities that improve inequities relating to CVD

6. Further investigations into high local rate of elective interventions

Although much reduced from earlier rates, Dorset ICB might wish to further investigate the reasons behind the continuing high rates of elective cardiac interventions to ensure best use of resources.

Actions:

- Dorset ICB to consider investigating continuing relatively high rates of cardiac interventions

Note: Public Health Dorset is currently disaggregating into two public health teams within Dorset Council and BCP Council respectively, effective from 1st April 2025. Recommendations referencing Public Health Dorset should be considered by each new public health team post-disaggregation. LiveWell Dorset will remain a shared service between both councils post-disaggregation.