This educational event is supported by
GILEAD MSD ViiV Healthcare

O10: Piloting a nurse-led hypertension screening pathway as part of an HIV annual health review

Heather Renton, CNS Co-Ordinator
Sussex HIV BP@home pilot project

Piloting a nurse-led hypertension screening pathway as part of an HIV annual health review

Heather Renton, CNS Co-ordinator: Sussex HIV BP@home pilot project

Conflict of Interest

Gilead sponsored 3 hour training session July 2023

Speakers are required by the Federation of the Royal Colleges of Physicians to disclose conflicts of interest at the beginning of their presentation, with sufficient time for the information to be read by the audience. They should disclose financial relationships with manufacturers of any commercial product and/or providers of commercial services used on or produced for patients relating to the 36 months prior to the event. These include speaker fees, research grants, fees for other educational activities such as training of health professionals and consultation fees. Where a speaker owns shares or stocks directly in a company producing products or services for healthcare this should also be declared. Finally, other conflicts of interest including expert functions in health care or healthcare guidance processes should be declared (eg if the professional is a member of a health board). The Federation considers it good practice to also make speakers' disclosures available in digital format(s) relating to the educational event.

East Sussex Healthcare NHS Trust

Improving Lives Together
Our ambition for a healthier future in Sussex
NHS Sussex

Blood Pressure at Home (BP@Home)

University Hospitals Sussex NHS Foundation Trust

Piloting a nurse-led hypertension screening pathway as part of an HIV annual health review

Heather Renton, Dr Eileen Nixon, Dr Sonia Raffe

Sussex HIV Nursing team
Brighton: Zoe Adler
Eastbourne/Hastings: Zoe Cuthbertson
Chichester: Barbara Hayman
Crawley: Farai Mukazi
Worthing: Becky Murdock

Integrated Care Board (ICB):
Dr Richard Blakey & Dr Suneeta Kotchhar

Background

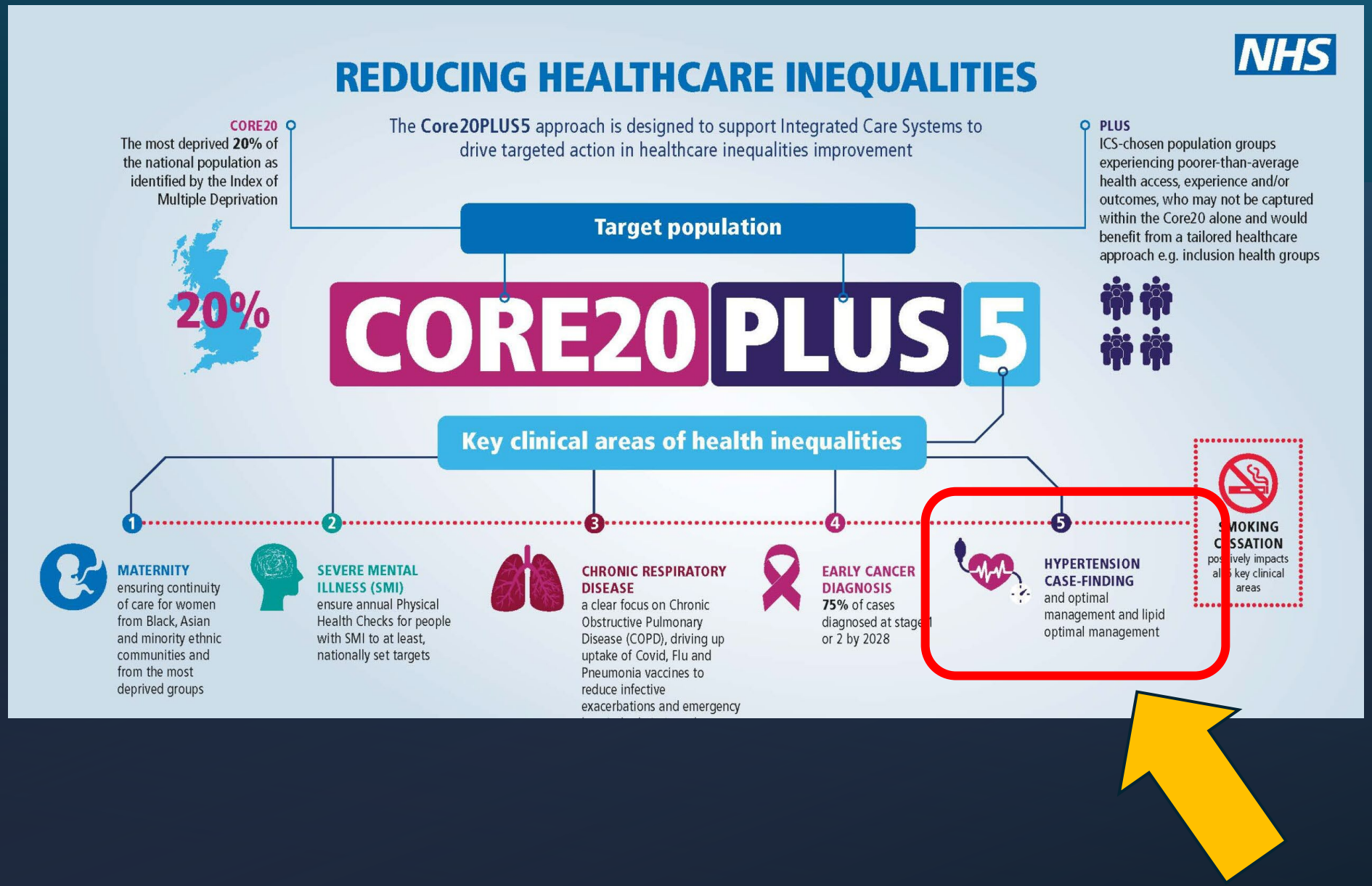
- **Cardiovascular Disease (CVD) affects round 7 million people living in the UK; accounting for up to a ¼ of premature deaths** (NHS 2024)

- **More than 30% of hypertension cases in the UK remain undiagnosed with prevalence rising across all age groups** (NHS 2021)

- **Increased Cardiovascular Disease (CVD) risk in people with HIV** (Shah et al 2018, Feinstein 2021)

NHS (2021) *Cardiovascular disease prevention and diagnosis : supplementary guidance*. Available from: B0951-v-network-contract-des-20-21-cvd-supplementary-guidance.pdf (england.nhs.uk)
NHS (2024) *Cardiovascular Disease* Available from**:** NHS England » Cardiovascular disease (CVD)
Shah et al (2018) *Global Burden of Atherosclerotic Cardiovascular Disease in People Living With HIV: Systematic Review and Meta-Analysis*. Circulation. Sep 11;138(11):1100-1112. doi: 10.1161/CIRCULATIONAHA.117.033369.
Feinstein (2021) *HIV and Cardiovascular Disease: From Insights to Interventions.* Top Antivir Med. Oct-Nov;29(4):407-411. PMID: 34856094; PMCID: PMC8670825.

Aim of pilot project



This pilot project aims to establish a nurse-led hypertension screening pathway for PLWH aged over 40-years across six HIV clinics in the South of England.

Method

Develop project steering group

Appointment of designated CNS post for the pilot

Staff training package developed and adapted for each clinic

Mapping annual health check pathway in all 6 clinics

Developing a hypertension pathway in line with NICE guidelines

SOP, BP monitors and template letters for primary care

Patient consultation

Incremental start dates

Communications strategy

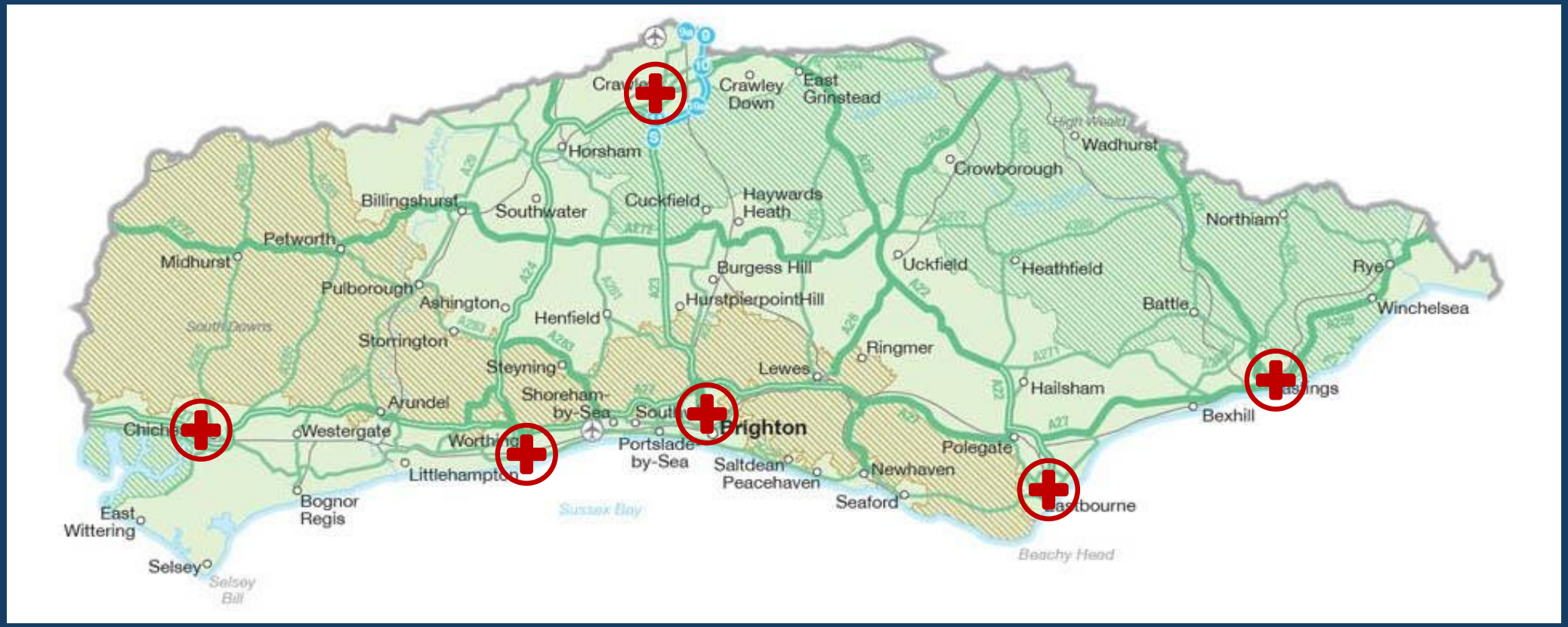
Pan Sussex Steering Group

Band 7 Co-oordinator

West Sussex team

Brighton & Hove team

East Sussex team



Staff training

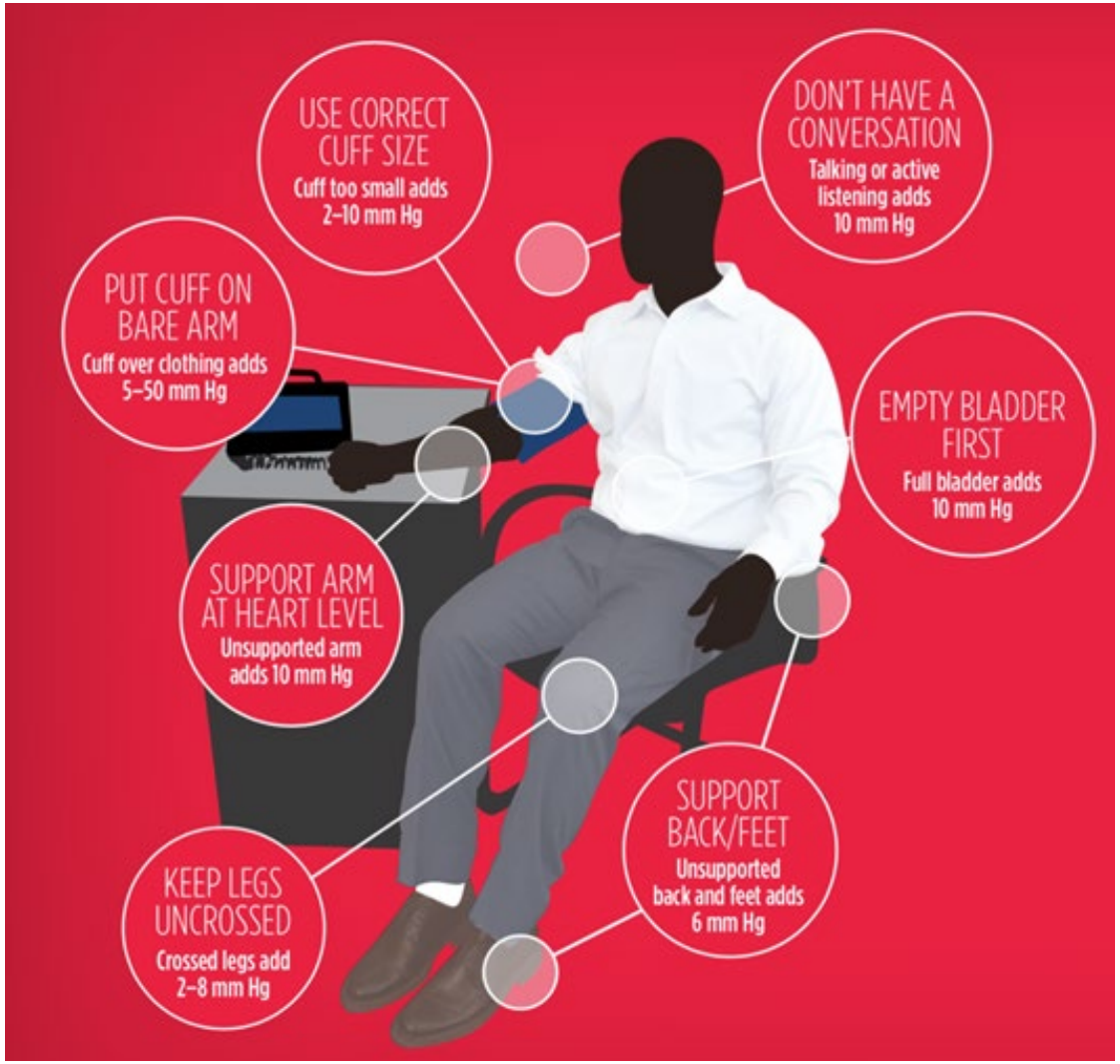
Initial training package– recorded 3 hour presentations/discussion

Adapted training for individual clinics – recorded 1 hour condensed training/discussion

On-site training with staff groups plus 1-1 Clinic visits including meetings to establish clinic set ups and activity

Risk factors Modifiable vs Non-modifiable[1]

1.- NICE (2023) What are the risks factors. Available at: https://cks.nice.org.uk/topics/cvd-risk-assessment-management/background-information/risk-factors-for-cvd/ (Access: 17 July 2023).



https://alaskahealthfair.org/wp-content/uploads/2019/08/Measuring_Blood_Pressure_In-Office.pdf

Method

Develop project steering group

Appointment of designated CNS post for the pilot

Staff training package developed and adapted for each clinic

Mapping annual health check pathway in all 6 clinics

Developing a hypertension pathway in line with NICE guidelines

SOP, BP monitors and template letters for primary care

Patient consultation

Incremental start dates

Communications strategy

Hypertension pathway and BP@home (Blood Pressure at Home)

Criteria:

Over 40 years old

Not on anti hypertensives

<130/80 → No action required

Cat 1 130/80 to 139/89 → Lifestyle advice only

Cat 2 140/90-179/119 → Lifestyle advice + BP@home

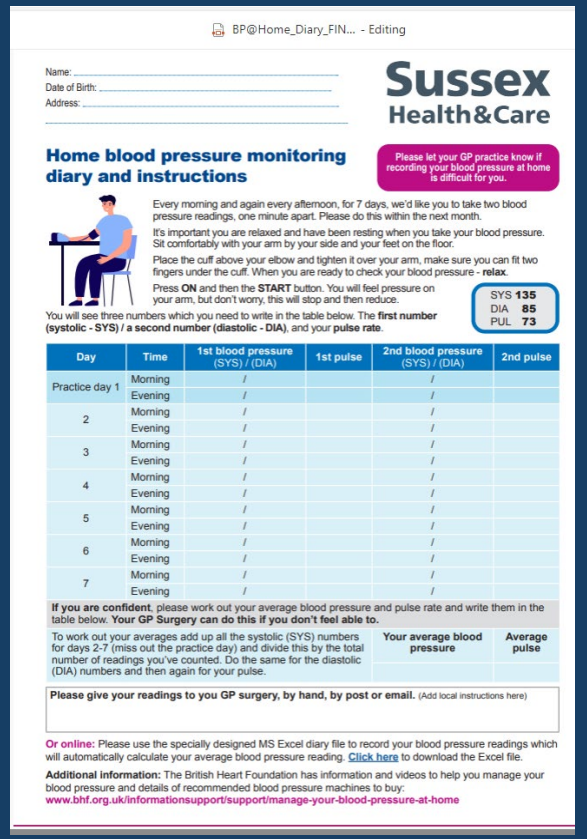
Cat 3 >180/120 → Lifestyle advice, BP@home + Same day medical review as required

BP@home

Two BP readings at home twice a day for 7 days - average

Validated upper arm cuff BP monitor borrowed from clinic or bought – under 5 years old, serviced every 2 years

Paper diary or **excel diary** to be photographed and emailed or returned to clinic in person/post



BP@Home_Diary_FIN... - Editing

Name:
Date of Birth:
Address:

Sussex Health&Care

Home blood pressure monitoring diary and instructions

Please let your GP practice know if recording your blood pressure at home is difficult for you.

Every morning and again every afternoon, for 7 days, we'd like you to take two blood pressure readings, one minute apart. Please do this within the next month.

It's important you are relaxed and have been resting when you take your blood pressure. Sit comfortably with your arm by your side and your feet on the floor.

Place the cuff above your elbow and tighten it over your arm, make sure you can fit two fingers under the cuff. When you are ready to check your blood pressure - **relax**.

Press **ON** and then the **START** button. You will feel pressure on your arm, but don't worry, this will stop and then reduce.

SYS **135**
DIA **85**
PUL **73**

You will see three numbers which you need to write in the table below. The **first number (systolic - SYS) / a second number (diastolic - DIA)**, and your **pulse rate**.

Day	Time	1st blood pressure (SYS) / (DIA)	1st pulse	2nd blood pressure (SYS) / (DIA)	2nd pulse
Practice day 1	Morning	/		/	
	Evening	/		/	
2	Morning	/		/	
	Evening	/		/	
3	Morning	/		/	
	Evening	/		/	
4	Morning	/		/	
	Evening	/		/	
5	Morning	/		/	
	Evening	/		/	
6	Morning	/		/	
	Evening	/		/	
7	Morning	/		/	
	Evening	/		/	

If you are confident, please work out your average blood pressure and pulse rate and write them in the table below. **Your GP Surgery can do this if you don't feel able to.**

To work out your averages add up all the systolic (SYS) numbers for days 2-7 (miss out the practice day) and divide this by the total number of readings you've counted. Do the same for the diastolic (DIA) numbers and then again for your pulse.	**Your average blood pressure**	**Average pulse**

Please give your readings to you GP surgery, by hand, by post or email. (Add local instructions here)

Or online: Please use the specially designed MS Excel diary file to record your blood pressure readings which will automatically calculate your average blood pressure reading. Click here to download the Excel file.

Additional information: The British Heart Foundation has information and videos to help you manage your blood pressure and details of recommended blood pressure machines to buy:
www.bhf.org.uk/informationsupport/support/manage-your-blood-pressure-at-home

Method

Develop project steering group

Appointment of designated CNS post for the pilot

Staff training package developed and adapted for each clinic

Mapping annual health check pathway in all 6 clinics

Developing a hypertension pathway in line with NICE guidelines

SOP, BP monitors and template letters for primary care

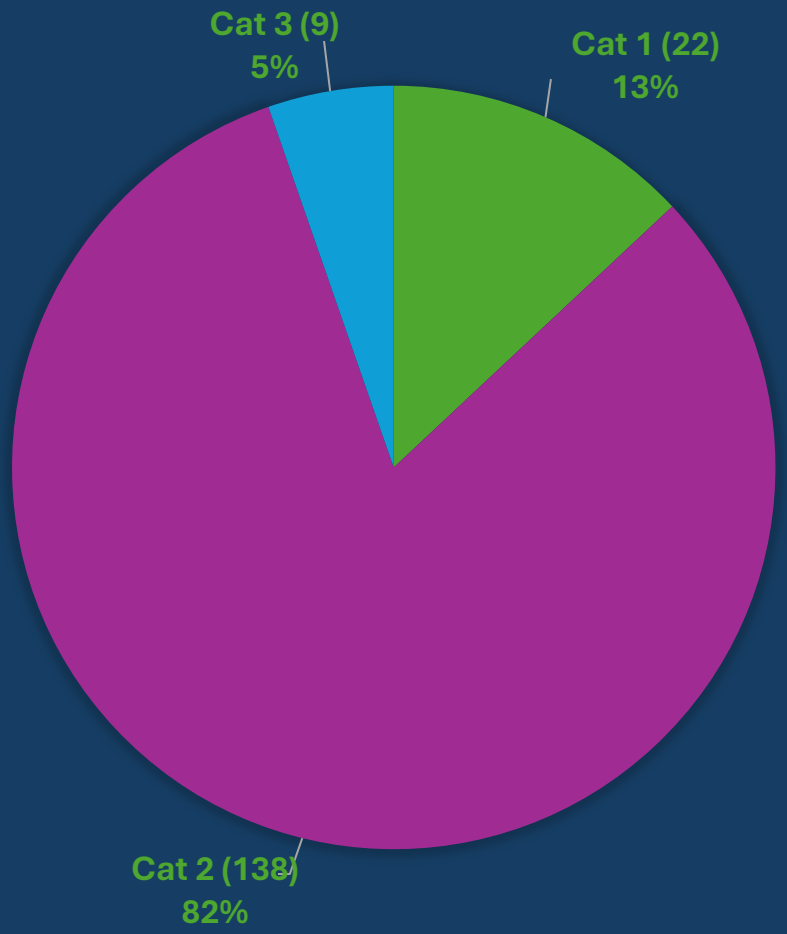
Patient consultation

Incremental start dates

Communications strategy

Commenced on pathway in first 6 months (20/11/2023- 31/05/2024)

Total commenced on pathway across all 6 clinics: **169**



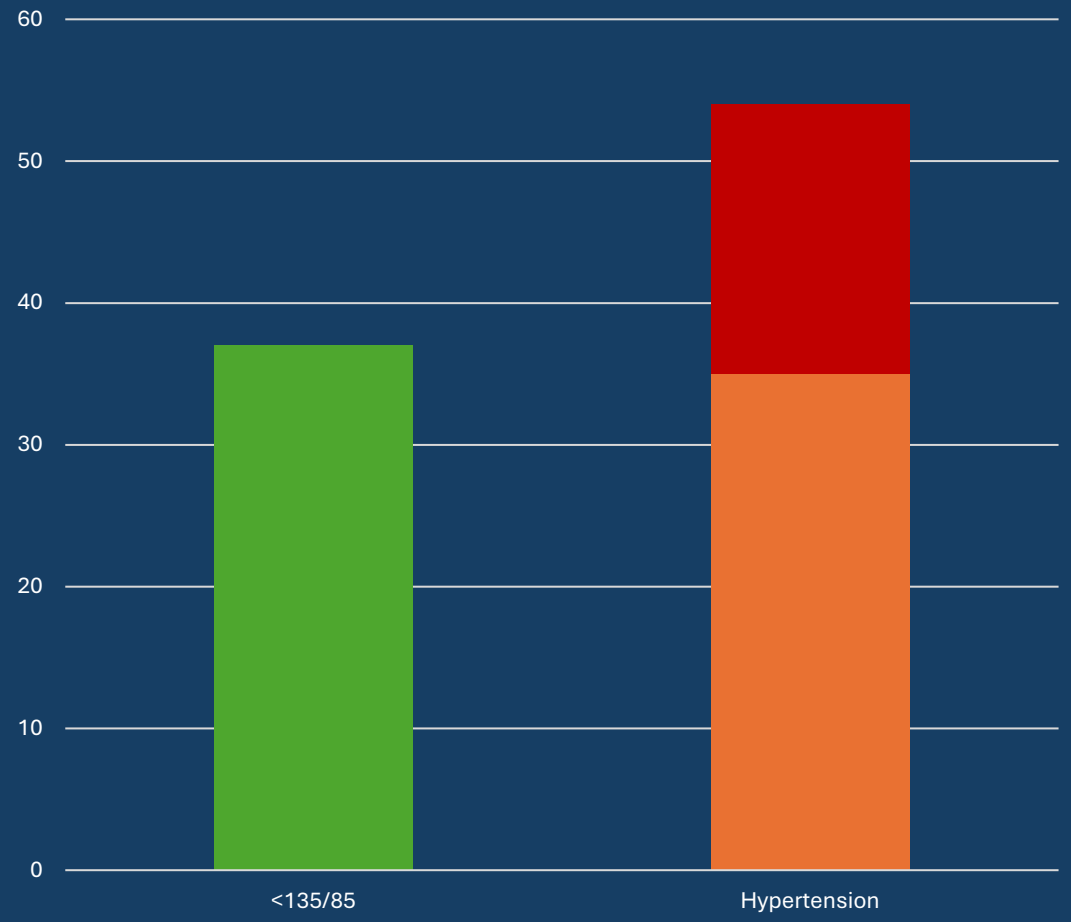
Cat 1
BP 130/80-139/89

Cat 2
BP 140/90-179/119

Cat 3
BP >180/120

Number of people offered BP@home monitoring: **147**
Approx number of monitors lent out: **139**
Monitors returned: Unknown

Hypertension diagnosed in first 6 months of pilot project (20/11/2023-30/05/2024)



91/147 (61.9%) returned diaries so far

37 people BP <135/85

35 people BP 135/85-149/94
(Stage 1 Hypertension)

19 people BP >150/95
(Stage 2 Hypertension)

Total: **54 (59.3%)** diagnosed with hypertension and referred back to primary care

Lifestyle changes observed to date

Barriers to implementation

Staff Barriers

- Staffing backfill
- Additional work
- Time

Initial training needs
Familiarisation with SOP/Pathway
Entering data onto shared databases
Relative consistency across network
Follow up results/outcome/chase unreturned monitors

- Resistance to change

Patient Barriers

- Returning monitors
- Additional visits / time in clinic
- GP access – unable to get appointments
- Physical, emotional, social and economic factors

e.g. prescription costs/travel costs to clinic, other health priorities such as mental health, time to do monitoring (work/family)

Conclusions

We are still collecting data and further work is required to identify staff resources needed to sustain this project in the longer term

The project has been already been deemed successful by providing lifestyle advice to 169 people identified as at risk. To date, 91 people have returned their diaries with a diagnoisis of hypertension made in 54/91 (59.3%)

This CVD pilot project demonstrates that HIV Nurses are well placed to drive and deliver relevant diagnostic pathways that respond to the changing needs of PLWH

Acknowledgements

Brighton & Hove Nursing and Medical team, University Hospitals Sussex

East Sussex Nursing and Medical team, East Sussex Healthcare

West Sussex Nursing and Medical team, University Hospitals Sussex

Tracey Kerr, Project lead (2023), NHS Sussex

Louise Douglas, Head of Long Term Conditions, NHS Sussex

Jemma Measor, Sussex@home programme manager, NHS Sussex/East Sussex County Council

Duncan Cresswell, Clinical Networks Manager (Hepatitis C/HIV), University Hospitals Sussex

Sobnom Panna, Long Term Conditions Project Manager, NHS Sussex

Sarah Young, Cardiovascular Nurse Consultant