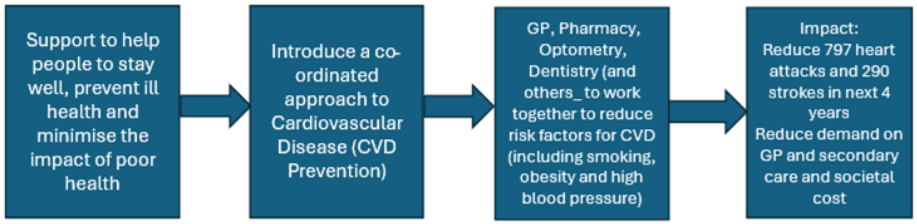
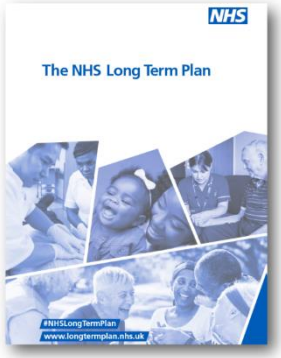
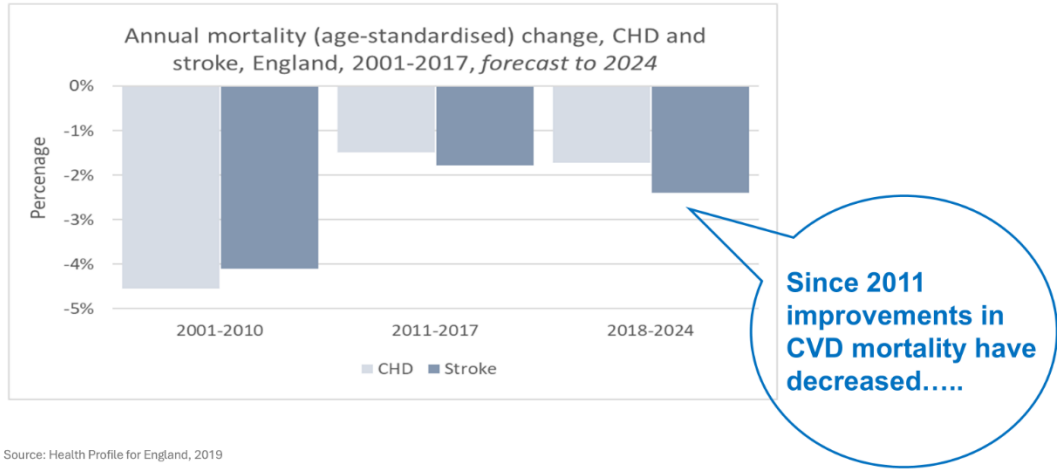
CVD Prevention – Hypertension case finding in dental practices **Training webinar - 29th October 2024**	The presenters • Hugh O'Keeffe, Senior Programme Manager, Pharmacy Optometry and Dental Services, BOB ICB • Shabir Shivji, Regional Chief Dental Officer, NHS England South-East • David Dean, Chief Executive Officer, Community Pharmacy Thames Valley
1. The BOB ICB Primary Care Strategy / CVD Prevention NHS Buckinghamshire, Oxfordshire and Berkshire West • https://www.bucksoxonberksw.icb.nhs.uk/media/4312/primary care-strategy-final-21_05_24.pdf 	https://www.bucksoxonberksw.icb.nhs.uk/media/4312/primary-care-strategy-final-21_05_24.pdf This is an important issue for the BOB ICB. It's part of our primary care strategy to help people stay well and prevent ill health. It is hoped to have a positive impact on the wider healthcare system in terms of trying to reduce the demand presented elsewhere. We're part of the national pilot, with 10 other ICBs taking part and there's also optometry practices involved in 9 ICBs. They have a completely different model of contracting and funding. But there are common lessons to be learned.
The NHS 10-year plan has CV disease as a priority NHS England  3.66. Heart and circulatory disease, also known as cardiovascular disease (CVD), causes a quarter of all deaths in the UK and is the largest cause of premature mortality in deprived areas. **This is the single biggest area where the NHS can save lives over the next 10 years.** 3.67. Early detection and treatment of CVD can help patients live longer, healthier lives. ***Ambitious plan ..to prevent 150,000 heart attacks, strokes and dementia cases***	Background to national pilot – hypertension case finding in dental practices Currently there's a drive to integrate care and this programme has been endorsed by leaders in NHSE.

CVD mortality improvement….has decreased

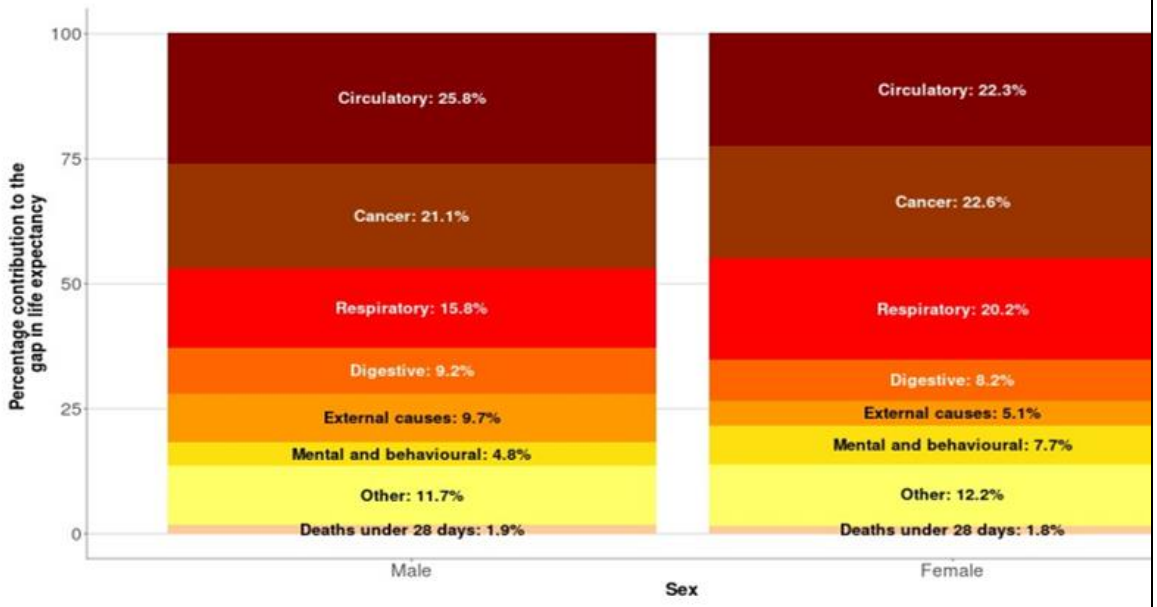


Source: Health Profile for England, 2019

Reasons for cardiovascular disease mortality improvement stalling are thought to be multi-factorial

- Obesity and associated diabetes has increased in the younger population
- The effects of an increase in the older population has had an impact
- Lifestyle improvements have stalled (e.g. average blood pressure in population has changed little over the past 3 to 5 years)
- Healthcare innovation and improvements have plateaued (for example, statins in the population have not increased)

CVD is a cause of health inequalities



Breakdown of life expectancy gap between England's most deprived quintile and least deprived quintile, by broad cause of death

This demonstrates the contribution of various conditions to inequality in life expectancy between the most deprived quintile and the least deprived quintile.

You can see the significant impact cardiovascular disease has and cardiovascular Disease is the largest cause of premature mortality in deprived areas.

1. Maximise the opportunity within routine health and care interactions.
2. Fit into and complement existing professional clinical, care and social engagement approaches to enable opportunistic interactions to drive health improvement.

Face-to-face

- With appropriate training, patients attending in other health care settings could have their blood pressure and pulse measured

So, what part can dental teams play in this ambition?

Making Every Contact Count
This will not be breaking news to any of us. Originally conceived in about 2009 and a consensus report by multiple healthcare providers produced in 2016, it is still a critical tool to achieve this and the other ambitions of the NHS long term plan.

One of the silver linings from COVID was the pop-up clinics in the vaccination centres for doing blood pressure readings, diabetes readings etc. and opportunities for contact and interventions, and that's really promoted the effectiveness of Making Every Contact Count.

Why Dental Teams?

Unique NHS Dental patient contacts (NHSBSA)

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
TOTAL	25,304,426	25,460,602	25,405,437	25,530,907	25,108,519
Total 40 years and over	12,004,631	12,116,699	12,072,815	12,149,803	11,960,082
Average 2015/2016 to 2019/2020 for 40 years and older	12,060,806				

On average over the last five years there were over 12 million unique patient contacts with the over 40 years age group. The over 40 group will be our cohort for the pilot as they are the highest risk category for cardiovascular disease. Our Cardiology colleagues see this as a potential game changer in cardiovascular disease detection and prevention.

Why Dental Teams?

Emerging evidence of a possible association between periodontal disease and atherosclerotic vascular disease (ASVD). (Lockhart 2012), (Deitrich 2017).

- Lockhart conducted a systemic review and concluded that the literature indicates an association between Periodontal Disease and ASVD independent of known confounders.
- Lockhart does conclude that a contribution of Periodontal Disease to ASVD is biologically plausible building on the earlier work by Tonetti et al (2007).

Periodontitis is independently associated with cardiovascular diseases – EJDP 2023

This highlights the key pieces of evidence that there is at least an association with Periodontal disease and cardiovascular disease. As the evidence develops it is an aspiration case that Cardiologists will refer their patients to dental teams to improve their oral health. This reciprocal process could develop on the back of this programme.

A rigorous cost effectiveness model to demonstrate the consequences of dental providers being able to engage in case finding • Using Public Health England (PHE) Cardiovascular Disease Prevention Return on Investment Tool • simulation model which returns the differences between the baseline known prevalence and the target known prevalence desired of, in this case, hypertension or AF. • We have put together estimated costs of dental case finding for AF and hypertension and, by using the algorithm we designed, linked the impact of testing NHS dental patients Nationally and Locally to changes in known prevalence.	We commissioned independent health economic modelling using the PHE cardiovascular disease prevention return on investment tool for dental case finding for the two conditions of hypertension and AF. The tool identifies that detection gap between what we know, as prevalence, and what we are aiming for. We did this nationally and used a local area to help make the case for national or local commissioning in the long run. The results are very striking.
Over a three-year period for dental providers to test 6,005,206 patients (50% of the average number of unique NHS dental patients over 40 in England between 2016/17 and 2019/20) and detect previously unknown cases of hypertension. The PHE CVD Prevention ROI model calculates that 43,738 CVD events would be avoided over 20 years, with cost savings for the NHS and social care of £48,204,486. The overall cost to the NHS per predicted CVD event avoided would be £1,102.	In our paper we produced we estimated the health economics for 5 – 100 % of the average footfall in the last 5 years of over 40's in NHS dental practices. This was to allow for natural variation, known hypertensives and AF sufferers and the Covid impact. You can see that with 50% footfall it is possible to save over 48 million pounds via dental participation. This does not include the wider economic gain in reduced absence from the workplace but does consider the potential social care costs. It's predicted about 44,000 CVD events would be avoided. The majority of these CVD events are heart attacks and strokes. This is important for the individuals concerned but also their families.

British Heart Foundation

On behalf of the British Heart Foundation and Primary Care Cardiovascular Society:

Heart and circulatory disease are a major driver of health inequalities in the UK. ***However, because they are largely preventable, we have a real opportunity to close the gap.*** *Detecting, diagnosing and treating people with risk factors such as hypertension are central to this effort and is vital for preventing thousands of people from suffering from acute cardiovascular events and long-term conditions.* ***Testing new approaches to identify those at risk in alternative settings, and signposting them to support, will have a significant role to play*** *in achieving the NHS long term plan's ambition to prevent 150,000 heart attacks, strokes and cases of vascular dementia by 2028, a challenge that is all the more important in the context of the Covid-19 pandemic.*

Blood Pressure UK

Blood Pressure UK is a patients' charity, and we are supporting dental teams to identify high blood pressure amongst their patients, who may otherwise go unchecked.

We hope that patients will then receive further support from their local pharmacy or GP to get their high blood pressure treated and so reduce their risk of cardiovascular disease.

Verified patient testimony

My blood pressure reading was recorded as 173/84 by a dental therapist in Leeds and I was advised to book an appointment my GP, which I did.
My GP was very supportive of the case finding process. I was immediately prescribed Amlodipine and asked to monitor my BP which was high. Many blood tests and visits later I am now taking Amlodipine and Ramipril, and my blood pressure has now stabilised to a better level.

I have since discovered that many of my family have high blood pressure and my maternal Grandmother died suddenly following a stroke at the age of 52.
I am so grateful that I engaged with the case finding and potentially saved me from a more serious outcome.

When you start the programme, the first thing to do, with consent, is look at your own dental team. This gives you an opportunity to practise the process, but also detect cases in your team. Dentistry is a stressful career and there are likely to be undiagnosed hypertensives as there are no symptoms until it gets very high. That is why it is a silent killer.

Progress to date

- 2022 – completion of small proof of concept pilots with HEE NE, Y&H
- 2022 – current. Case finding AF, HTN in Peninsula Dental School in association with research
- 2022 –2023 2 commissioned sites in ERY CCG funded – where capacity existed
- December 2022 – May 23. HTN case finding in 24 Foundation sites – where capacity existed (100 interventions – 12 HTN confirmed cases)

Voluntary participation – practice had to be willing and have capacity.

Oral health delivery remains our priority and if we have capacity then we can undertake the case finding.

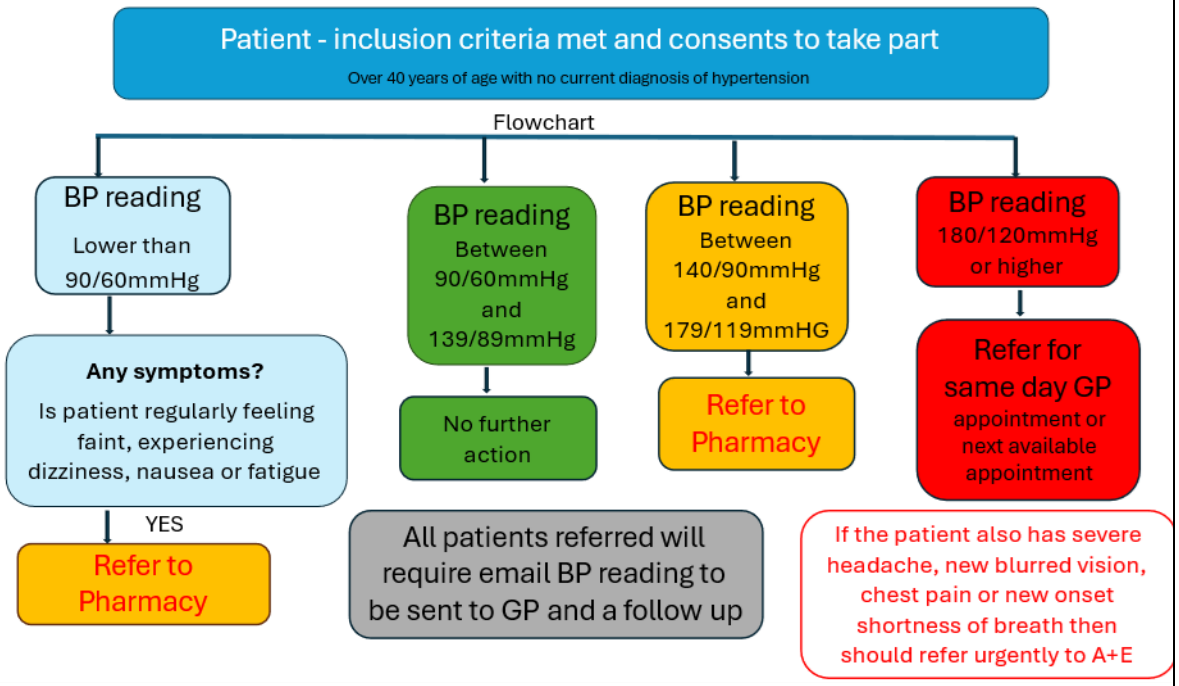
It is imperative we do not swap one health inequality for another

Outcomes so far

- 445 interventions
- 72 Hypertension cases found (16%)
- 5 AF found (Initial concept pilots)

This is a summary, and these numbers have gone up already. 16% confirmed diagnosis of hypertension.
The percentage in the population of undiagnosed hypertensives is 29% so this is a good result.
Targeted high IMD areas in line with CORE20PLUS5 programme in reducing inequalities.

Now evolved as a National Pilot • 1 of 11 (out of 42) ICBs accepted to Dental CVD Case Find • Optometry also piloting (smaller scale) • No Targets • Yes, No targets • **Oral Health Service Delivery Remains the priority** • We must not swap one inequality for another	There was an expression of interest process, 11 ICBs were selected based on number of metrics and obviously this ICB is one of those. **Please note there are no targets relating to this pilot.** Numbers were variable in the pre-proof-of-concept pilot, some weeks there were a number of cases and other weeks there were none. We understand that's how it goes.
The BOB Pathway – Dental Consent/ Communication is key • We are not diagnosing; we are case finding and if appropriate referring onwards • Case find in your Team first! • 'These are your numbers today' • 'The numbers go up and down for many reasons, so we will refer to the pharmacist for further investigation' • The exception is >180/120 – local urgent care pathway (But rare) • Either Number can hit the threshold for referral	There'll be an online training programme that shows you how to take a good blood pressure reading. There will be information that tells you about communication. That's key, because it's very important we don't overwhelm GPS with people who are worried because their readings are high. Making them understand that the readings fluctuate. 'But today your numbers were this and as a result of that, we will refer onwards for further investigation'. I hear a lot of people talking about diagnosing high blood pressure. We're not doing that. It's not within our scope to do that. The phrases to use are – 'These are your numbers today', we're not saying anything more than that. 'The numbers go up and down for many reasons, so we'll be referring you to the pharmacist'. We are using the model where we refer to the pharmacists who are taking part in the national blood pressure programme. They can instigate further tests and then onward refer to the GP.

	The exception is if the reading is 180 / 120. That's an exceptionally high reading and that requires urgent care. If either number goes over the threshold, then it reaches the threshold.
	You can see here after consent and the right information given to the patients to take part, you take the reading, and you take the average of three readings with the monitors. If the blood pressure is lower than 90 / 60 with symptoms, you refer to the pharmacy and they will do further testing. If the blood pressure reading is between 90 / 60 and 139 / 89, there's no further action required. If the BP reading is between 140 / 90 to 179 / 119, then that needs to be referred to a pharmacy. If the BP reading is 180 / 120 or higher that needs to be referred to the GP for a same day or the next available appointment. This is an urgent care pathway. If the patient has 180 / 120 or higher and headaches, blurred vision or chest pain. Then they need to go to A&E immediately.

The BOB Pathway – Pharmacy

I'm the chief officer of the local pharmaceutical committee. We support and represent the 325 pharmacies across Thames Valley, of which 253 are within BOB and I just want to say how brilliant it is to be able to take part in this pilot with yourselves and to start joining the dots and collaborating between the different healthcare sectors within primary care.

Pharmacy has been delivering a very similar service for about three years. Where we take readings from patients that walk into pharmacies and do a percentage that are referred to us from GPs as well.

In terms of the pathway to pharmacy, we're there to provide a safety net for any readings that you've taken within the dental setting. Especially as for those anxious patients this may affect their reading on the day.

The procedure would be we would receive a referral from a dental practice either by e-mail or I believe we can accept a hard copy one as well in the form of a letter.

We would treat that patient, starting from scratch. Basically, we'll take readings and then following exactly the same sort of clinical pathway as needed. We would then give the patient a blood pressure machine where they could take readings every half an hour for seven hours and all that data, is sent to the patient's GP. We've got similar red flags and alerts set up for any patients that fall way outside of the recognised clinical safety limits.

So, one of the things I'd make sure that you do in your dental practice is to know where you're going to send patients and there is a list of community pharmacies in the SOP.

https://www.nhs.uk/nhs-services/pharmacies/find-a-pharmacy-that-offers-free-blood-pressure-checks/ This is the link to the NHS service Finder website where you can find a pharmacy that is delivering the service, but 95% of all pharmacies are registered to take part.

But I would also recommend that you actually touch base with your local pharmacy anyway, either pop in and say hello as there's an opportunity here to build up a relationship with your local pharmacy.

I'll be publishing the bulletin that Hugh has put together in our newsletter that comes out next week and will also put it in our weekly digest that goes to all our pharmacies so they're aware of the pilot and hopefully therefore ready to help.

Smoking is everyone's business
Stopping smoking is the most important thing a smoker can do to improve their health; it remains the leading cause of disability and death. Smoking is a key driver to increased risk factors leading to cardiovascular disease, such as hypertension and diabetes and of course, not to mention the increased risk of oral cancers, periodontal disease caries, gum disease and bone loss.
People who are referred by staff in health settings are statistically more likely to make a quit attempt and be successful – your words matter! It is 30 seconds to save a life…..

Stop smoking – find your local service
https://www.nhs.uk/service-search/other-health-services/stop-smoking-support-services

Smoking cessation.
These are the contacts for those services

We'll send out to you a standard operating procedure after this event with a lot of further information.

- Oxfordshire - Stop for life Oxon - Stopforlifeoxon.org
Service Free Phone Number: **0800 122 3790**
Free Text: STOPOXON 60777
NHS Mail for ALL referrals and any PID/confidential data: referrals.stopforlife@nhs.net
Service website: Encrypted referral form: https://www.stopforlifeoxon.org/referral-form/

- Buckinghamshire (not MK) Be Healthy Bucks
https://bhb.maximusuk.co.uk/referrers/

- Berkshire – Smokefreelife Berkshire
https://www.smokefreelifeberkshire.com/

Postcode	Location	Practice(s)
Buckinghamshire		
HP12	High Wycombe	Rodericks (Sands House); Cressex Dental Practice
HP19	Aylesbury	Eastgate Dental Practice; Aylesbury Dental Health Centre
Oxfordshire		
OX3	Headington, Oxford	Studental; Damira Bury Knowle; 310 Dental Care; Kennet Road
OX4	Oxford	Temple Street; Westbridge; Leys
OX16	Banbury	Damira Bridge Street; Banbury Dental Practice
Berkshire West		
RG4	Caversham	Riverside Dental Practice
RG31	Tilehurst	Gentle Dental

These are the practices who have stepped up and said they would like to take part in the pilot.

We were targeting certain postcodes broadly trying to look at the more deprived areas. There's a good coverage really across the ICP in terms of where this scheme is being run.

Getting going

- Expressions of Interest
- Identification of staff to take part
- Set up on SBS payments system
- Memoranda Of Understanding (MOUs)
- Standard Operating Procedures (SOPs) – includes monthly monitoring spreadsheets
- National reporting and review
- Training webinar
- Communication with local stakeholders – information to GPs and Pharmacists
- ICB/Practice meetings – monthly?

In terms of where we've got to, we've got your expressions of interest in, you've identified the staff to take part. We're setting practices up on the SBS payment system. You get a code number in terms of accessing it. The SOP will contain information about how to process invoices through that because this is not going to be done via the compass payment system.

Memoranda of Understanding have been issued to confirm that you are taking part. A training webinar will be available shortly, showing how to take readings.

The SOP includes the monthly monitoring spreadsheets where you keep your own internal records of what you're doing and then send information through to us. The ICB will hold meetings with you at intervals, maybe monthly, using the format of peer-to-peer meetings just to talk about progress. We're part a National Review group, so we have to send in reports at intervals about how we're doing this, and we'll be subject to review and evaluation. Then in the next year the group will see how this has gone across the country and where we go from here.

Please try to link in with your other local primary care services as part of the pilot.

Getting going – Resources - BP Monitors:

1. Clinic BP monitors (appropriate number required) – BIHS validated monitors are listed here [For Specialist Use - British and Irish Hypertension Society | Registered UK Charity No. 287635 (bihsoc.org)]
2. The practice is to follow manufacturer's instructions in relation to calibration and upkeep.

In terms of the resources the BP monitors, the British and Irish Hypertension Society website has got detailed information on those. That link will take you to a spreadsheet, the home tab on there will show affordable sort of BP monitors that you can use for the purposes of this scheme and. When you you purchase one, then just send through the invoice to us and we will reimburse that cost through the SBS system.

Getting going – Resources - Posters/leaflets

We'll send you posters and leaflets, something to go up in your surgery and to give to the patients explaining this service to them.

Requirements	In place (Y/N)
Staff to take part in delivery of service	
Staff attendance at prescribed training	
Signed MOU	
Practice set up on SBS payments system	
BP Monitors	
nhs.net address established	
Posters and leaflets	
Communication with stakeholders	
Standard Operating Procedure	
Arrangements in practice to monitor progress	

Getting going - checklist

Please complete the checklist about your state of readiness to progress on the scheme.

It is vital for this scheme to use NHS net addresses. So we've sent the information about how to get those addresses set up, because that will be the only route for emailing any patient identified information to other primary care services.

In case you are in any doubt whether to take part: Today in England:

- 375 people today will die from a heart or circulatory disease, around 100 of them will be younger than 75
- 230 hospital admissions will be due to a heart attack
- 145 people will die from coronary heart disease

Useful notes from Q&A

- **Staff who can undertake the readings:** This should be a GDC registered clinical member of staff who has indemnity – it works well with utilising DCPs
- **Indemnity Confirmation:** Contact the indemnity provider to inform them that a head nurse or other GDC registered staff will be undertaking blood pressure readings as part of the scheme.
- **Cuff Size Procurement:** Ensure the purchase of appropriate blood pressure cuff sizes, including larger cuffs, and claim the cost back via SBS. A 32-to-42-centimetre cuff will cover most British people.
- **Not to take reading at the wrist:** Please only purchase BP monitors that take a reading on the upper arm.
- **Tips for taking a measurement:** The person should be rested, and they shouldn't talk during the reading because talking puts blood pressure up, but it offers a really good opportunity to talk to them about the importance of blood pressure, stopping smoking, not adding salt to your food, taking exercise and not drinking too much.
- **The SOP:** You'll get access to a host of resources, that will include a proforma for the referral to the pharmacy and GP. So, you just need to fill in the patient details and the readings for that day.
- **Clinical Note Keeping:** Set up a customized screen in the dental software to record blood pressure readings within the patient's clinical dental record.
- **Patient Consent Documentation:** Include a statement in the clinical records to document patient consent for blood pressure readings and referrals. Also, if a high or low reading, document that you told them they must go to the pharmacy or GP because then you're covered if they do not act on your advice.
- **Pharmacy Referral and Follow-Up:** Ask consent for the referral and ask the patient to choose which pharmacy they would like to go to. If they don’t have a preference the use the tool to find them a pharmacy. Implement, a follow-up call system to ensure patients referred to pharmacies for high blood pressure readings actually visit the pharmacy.
- **Evaluation Reporting:** Consider reporting on the number of patients who fit the pathway but do not consent to having their blood pressure taken.
- **Training for Blood Pressure Readings:** Ensure that dental nurses in training are aware they can undertake blood pressure readings as long as they have indemnity.
- **Calibration and replacing BP Monitors:** Calibration is not needed; pharmacies tend to replace monitors approximately every 12 months.