

Tackling the Silent Killer

Annual Public Health Report 2021/22: Hypertension

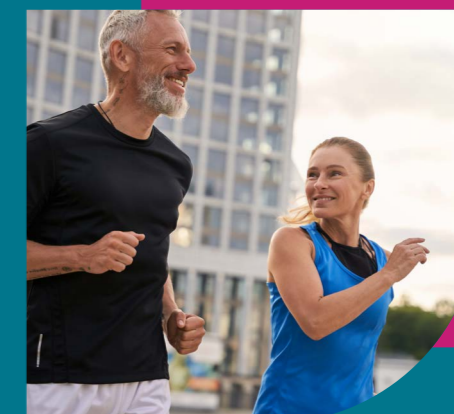


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CONTENTS

1	Foreword	4
2	Introduction	6
3	Saving lives by helping people earlier	17
4	Underdiagnosis, high quality treatment, and keeping to the treatment plan	23
5	Prevention	28
6	Innovations	40
7	Summary of Recommendations	43
8	Abbreviations used in this report	44
9	Acknowledgements	46



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1 Foreword From Director of Public Health

The focus of my annual public health report this year is one of the major public health challenges of our time, high blood pressure, also known as Hypertension. Hypertension is often termed the silent killer. When blood pressure is consistently too high, the heart has to work harder to pump blood around the body. If blood pressure is too high for a sustained period, it can lead to heart and circulatory diseases, kidney failure, heart failure, problems with sight, vascular dementia and ultimately death.

High blood pressure has a devastating impact on those affected by the condition. In England 1 in 4 adults are affected by high blood pressure. This amounts to around 13.5 million people. Within Medway approximately 45,000 people, nearly 1 in 5 adults, are diagnosed with hypertension. Hypertension is the third biggest risk factor nationally for heart disease after tobacco smoking and poor diet. In the region of 75,000 people die annually as a result of hypertension. It is a major cause of health inequalities. People living in the most deprived areas of England are 30% more likely to have high blood pressure than those living in the least-deprived.

Any actions taken to address the risk factors and reduce high blood pressure must take into account the wider determinants of health and social context of people's lived experience.

There are several straightforward things that can be done to tackle this major cause of premature death, disability, and inequality. We need to reduce the number

of people who are living with high blood pressure who do not know they have it. Forty percent of people are living with high blood pressure but are undiagnosed. In Medway it is estimated that up to 27,911 adults have high blood pressure but do not know it.

There needs to be a particular focus on those people in our most disadvantaged communities and specific ethnic minorities groups. For example, black Caribbean and black Africans have a greater risk of becoming hypertensive. The increasing diversity within England and Medway means more needs to be done to support these communities.

Additional action needs to be taken to support those people who are diagnosed with high blood, to manage it more effectively and take any prescribed medication. These people often have other underlying health conditions that can complicate treatment plans as they may have difficulty tolerating and taking multiple medicines. Use of digital technology to monitor and support them, as well as providing access to health care professionals other than their GP, such as pharmacists, can be beneficial.

More of an emphasis needs to be placed on reducing the likelihood of people becoming hypertensive in the first instance. Whilst some people are at an increased risk of high blood pressure due to inherited or genetic factors, there is much that can be done to reduce the risk in the general public. Not smoking, reducing the amount of salt and fatty food we consume and moderating

alcohol intake will help. Being more physically active, eating more fruits and vegetables and managing stress are other practical steps we can take to reduce our risk.

For those people aged 40-74 years, attending your routine free NHS Health Check when invited is really important. Outside of any clinical appointments, regularly checking and understanding what your own blood pressure is, 'knowing your numbers', is essential for everyone. Blood pressure devices are now relatively inexpensive and home monitoring can help to identify issues early so action can be taken.

Everyone must act in tandem to tackle the challenges posed by high blood pressure. Members of the public must do their bit to reduce the risks. People with high blood pressure who have been diagnosed, need to work with their health and care professionals to monitor and keep the condition under control. All of us need to know our numbers and raise awareness amongst friends and family alike of the risks of hypertension and the things we can do to reduce our risk. In doing so, lives will be saved and inequalities reduced.

James Williams
Director of Public Health

COUNCILLOR DAVID BRAKE, PORTFOLIO HOLDER FOR ADULTS' SERVICES

I commend this year's annual public health report which focusses on an issue that unfortunately will have affected many Medway residents. Whilst heartened that action we have taken over the years has led to fewer people being harmed and dying as a result of high blood pressure, there is much more to be done.

The recommendations set out in this report are timely. There is currently a reorganisation of health and care services underway at national and Kent and Medway level. This presents an opportunity for everyone involved in providing or commissioning health and care services to collaborate and focus attention on the issues that affect the physical and mental wellbeing of the population. Tackling the severe consequences of high blood pressure must be a system priority. In my role as Chair of the Medway Health and Wellbeing Board, I look forward to working with partners to build on the good work that has been done and take further action to address this serious threat to the public health.

Cllr David Brake
Chair Medway Health and Wellbeing Board, Portfolio Holder for Adults' Services

2 Introduction

2.1 HYPERTENSION – HOW IT AFFECTS PEOPLE’S LIVES

High blood pressure, also known as hypertension, affects more than one in four adults in England. It is the third biggest risk factor for disability and early death after smoking and poor diet¹. It is responsible for more than half of all strokes and heart attacks¹, and one in four early deaths in the UK². It disproportionately affects people from the most deprived areas. These communities are often already affected by multiple disadvantages. Hypertension can be more common in some ethnic minority groups for example black Africans and Caribbeans³. The difference between the prevalence of high blood pressure within specific groups or communities within the population leads to inequalities and poorer life chances for those affected. This has an impact not only on people’s health, but also on their income, living arrangements, and families.

Hypertension is unfortunately a major cause of health inequality and increases inequalities and disadvantage. People with high blood pressure are at greater risk of dying earlier than those who are not hypertensive. High blood pressure perpetuates the cycle of disadvantage. People with hypertension live shorter lives and have to contend with often debilitating effects of a condition that robs them of their independence. These unequal and unfair outcomes are not inevitable⁴. Providing early help to diagnose hypertension through taking into account the increased needs of different groups within the population, enables people to get the treatment and care they need to enjoy a longer and better quality of life.

Hypertension is often referred to as a ‘silent killer’. High blood pressure can quietly damage the body for years before any symptoms become noticeable. Often, by the time people become aware, the impact of disease has caused significant damage. If the condition is left untreated, the artery

walls will eventually become less elastic, limiting blood flow throughout the body leading to the onset of cardiovascular disease (CVD). CVD is the term used to describe a group of disorders of the heart and blood vessels that can cause life changing health problems⁵. For example, if the blood vessels that carry blood to the heart get damaged and clogged, they can lead to a heart attack. If arteries that carry blood to the brain get damaged and clogged, it may lead to a stroke. Hypertension is therefore very serious and, whilst the end result may be death, if untreated the condition can cause kidney failure, problems with eyesight, and vascular dementia⁶.

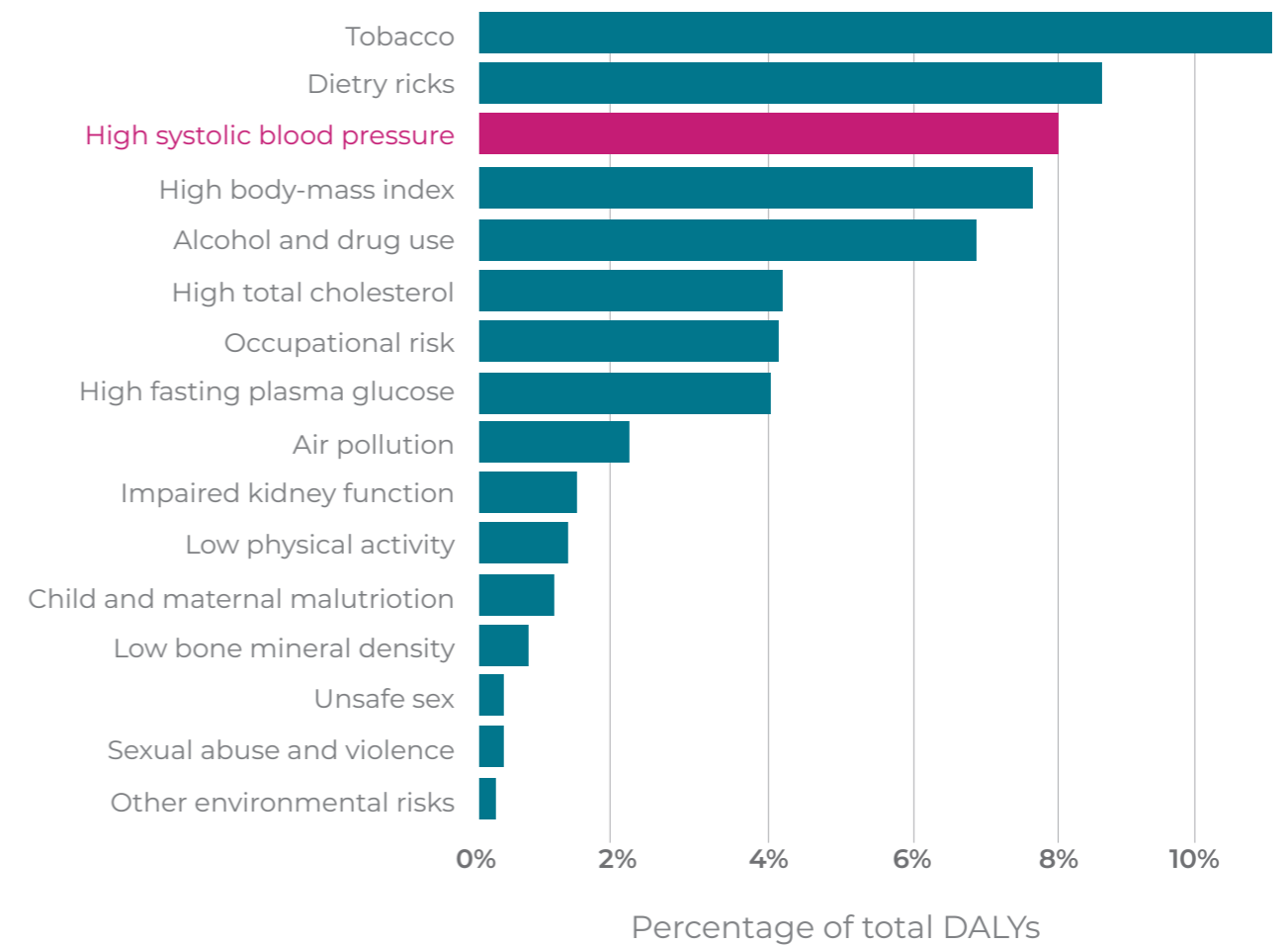
Hypertension is unfortunately a major cause of health inequality and increases inequalities and disadvantage.

Some people may unfortunately have genetic/inherited factors that can mean they are more prone to the risk of hypertension. Other factors that increase the chances of getting the disease include the work we do, the conditions we live in, and how old we are as it is more common in older people. Other things that increase the risk of the disease include poor diet, being overweight or obese and not being physically active⁵.

As hypertension can develop quietly over time, the only way to find out if blood pressure is high is to measure it. National strategies are focused on finding people who have hypertension but don’t know it. The ambition is for everyone to routinely



Source: Public Health England, Health Matters; combatting high blood pressure¹.



know their blood pressure. One key target is for 80% of the expected number of people with hypertension to be diagnosed by 2029⁶. In addition, it is vital that those who are diagnosed receive the right treatment which could include medication. For many, taking medication is challenging so they need to be supported to take any prescribed drugs as well as to make changes that would also help to reduce their risk (this would include being more active, dietary changes and weight loss)⁷.

Everyone deserves the right to live a long and healthy life. Significant population wide benefits can be achieved through increasing awareness of the simple actions that everyone can take to reduce their risk of getting high blood pressure. There is an urgent need to support people to 'know their numbers', particularly those from our most disadvantaged communities. Action to tackle hypertension will help reduce health inequality in society.

2.2 WHAT IS HYPERTENSION?

Blood pressure is the force used by the heart to move blood around the body. When the heart beats, it squeezes and pushes blood through the arteries (the vessels) that carry blood around the body and brain. This movement of blood creates pressure against the walls of the arteries. A certain amount of pressure is needed for the body to receive enough energy and oxygen. It is normal for blood pressure to rise and fall throughout the day and night, especially when we are moving around. It is when blood pressure is always high, even when the body is at rest, that we may need to do something about it⁵.

Blood pressure is measured using two numbers, the systolic (the top number), and the diastolic (the bottom number):

- i) **Systolic** - the pressure when the heart pushes blood out
- ii) **Diastolic** - the pressure when the heart rests between beats

For example, if the measurement reads 120 systolic and 80 diastolic, it is said as '120 over 80' and written as '120/80 mmHg.'

A diagnosis of hypertension is made when the blood pressure often falls outside of the 'normal' range.

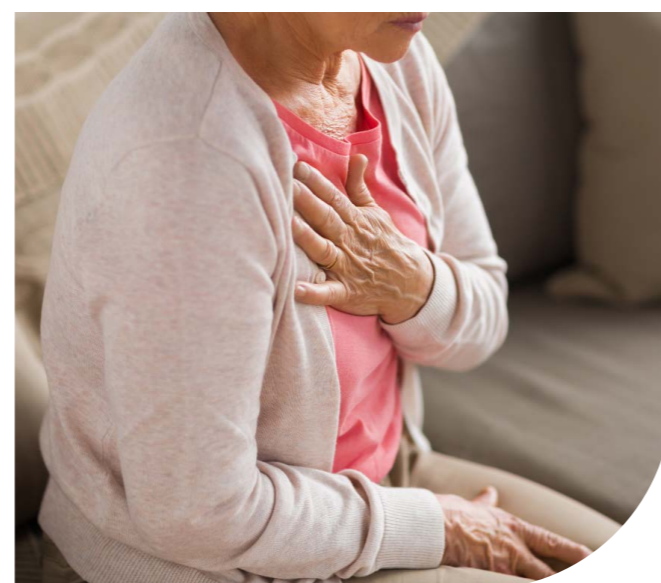
People with hypertension have blood pressure that is consistently too high. This causes the heart to work harder to pump blood around the body, putting extra strain on both the heart and blood vessels⁵.

Blood pressure	Systolic (Upper#)	Diastolic (Lower#)
Normal	Under 120	Under 80
Prehypertension	120-139	80-89
Hypertension (Stage 1)	140-159	90-99
Hypertension (Stage 2)	Above 160	Above 100
Hypertensive Crisis	Above 180	Above 110

2.3 SIGNS & SYMPTOMS

One in four adults with hypertension don't know they have it. People often feel fine but even though they feel well, they should still get their blood pressure checked regularly. When symptoms do become noticeable and more severe, they can include^{8,9}:

- Blurred vision
- Fatigue
- Vomiting
- Nosebleeds
- Shortness of breath
- Chest pain
- Dizziness
- Buzzing in the ears
- Headaches
- Anxiety



2.4 WHAT ARE THE THINGS THAT PUT PEOPLE MORE AT RISK OF GETTING HYPERTENSION?

Most people develop hypertension because of their diet, lifestyle, or a medical condition, but in some cases the reason is not clear. Modifiable risk factors are things where action can be taken to increase or decrease the risk of hypertension. Risks include⁵:

- Smoking
- Being overweight
- Being physically inactive
- Eating too much salt
- Not eating enough fruits and vegetables
- Drinking too much coffee or other caffeine-based drinks
- Drinking too much alcohol
- Not getting enough sleep or having disturbed sleep

2.5 WHAT ARE THE RISKS PEOPLE CANNOT CHANGE?

Non-modifiable risk factors are things that cannot be changed and are outside our control. These include inherited genetic conditions from parents or other close blood relatives who have high blood pressure. The older a person is, the greater the likelihood of having high blood pressure. There are a number of factors that may lead to people having hypertension in older age. Emerging evidence suggests hypertension in older age may be associated with the length of time people are exposed to modifiable risks⁵.

There are also significant issues related to a person's sex. Up to the age of 64, men are more likely to get hypertension than women. There is emerging evidence that suggests as women age, their risk of hypertension increases and can overtake that of men⁵. Ethnicity plays a key role, with people of black African and black Caribbean descent having an increased risk of becoming hypertension. People of south Asian decent are more likely to develop type 2 diabetes, which is a condition that can lead to high blood pressure⁵. Although these types of risks cannot be changed, it may still be possible to lower the risk through changes in diet and being more physically active⁵.

2.6 HYPERTENSION AND THE PLACES WHERE WE LIVE AND WORK

The environments in which we live and work can have a major impact on our risk of developing hypertension. Research suggests people in the most deprived 10% of the population, are almost twice as likely to die as a result of CVD, than those in the least deprived 10%⁷. Higher death rates in disadvantaged communities most likely stem from the fact that the incidence of high blood pressure in the poorest communities is roughly double that of wealthiest areas¹¹.

Continuing anxiety, insecurity of employment, lack of control over work and home life all have powerful effects on health. People with more freedom to decide their pattern of work, or those who have roles that enable them to feel more empowered, are less likely to have hypertension. The greater the number of disadvantages a person experiences in their life and the lower they are on the social and economic ladder, the more likely they will be exposed to risk factors that lead to high blood pressure³.

In recent years, emerging evidence has linked environmental pollution and climate change to an elevated risk of developing hypertension. Carefully performed studies have routinely observed an increase in blood pressure in the days following exposure to higher levels of air pollution¹⁰. Tackling issues related to climate change and putting in place appropriate measures for affected communities, will help to reduce the impact of environmental risk factors for hypertension.

2.7 HOW STRESS AFFECTS BLOOD PRESSURE

Experiencing high or constant levels of moderate stress over a prolonged period can take its toll on people physically and emotionally. If stress is not managed, it can lead to serious illnesses including CVD. In a stressful situation, the body reacts by releasing a surge of hormones which make the heart beat faster and narrows the blood vessels, raising blood pressure⁸. Continuous stress can mean that a person will frequently experience these changes.

Feeling stressed for a long time can also affect mood and quality of sleep and sometimes people take on unhealthy ways of coping. These could be things such as drinking alcohol, smoking, and eating foods high in sugar, salt, and fat. These things add to the risk of hypertension and the onset of CVD⁸.

2.8 HYPERTENSION AND PEOPLE WITH OTHER HEALTH CONDITIONS

As well as putting extra strain on the heart and blood vessels, blood pressure that is consistently too high puts strain on organs such as the kidneys, eyes, and brain. This increases the risk of serious conditions such as kidney disease, peripheral arterial disease, and vascular dementia⁵.

Some people who do not have hypertension but have been diagnosed with kidney disease or diabetes will have an increased risk of developing hypertension. Poor management of conditions like diabetes can damage blood vessels by making them narrow. Narrow blood vessels lead to an increase in blood pressure and a subsequent risk of clogged arteries¹¹. The number of health conditions a person has increases the risk of complications. It also means it becomes more difficult and costly to manage multiple health conditions.

Other groups at higher risk include pregnant women for whom routine monitoring of blood pressure is included as part of their antenatal care. People taking certain medications such as oral contraceptives, hormone replacement therapies and some over the counter and herbal medicines can also be at increased risk⁵.

As has already been stated, people of black African, black Caribbean and South Asian ethnicity are more prone to developing type two diabetes. People who are diabetic have an increased risk of developing high blood pressure³. People from these ethnic groups are at risk of developing type two diabetes from the age of 25 years, compared to the white population whose risk starts to increase from the age of 40¹¹. This onset of disease at a much younger age, together with the impact of more than one health condition, increases the risks of disability and complications that can affect health and wellbeing and lead to dying early.

2.9 ECONOMIC IMPACT OF HYPERTENSION

Estimates suggest that the annual burden to the NHS in England from conditions associated with hypertension (including stroke, heart disease, kidney disease and dementia) is over £2bn. However, the impact of high blood pressure extends well beyond the cost of clinicians treating people

or the medication used to manage the condition. Additional costs are associated with the provision of social care services to support people who lose their ability to live independently. There may also be costs associated with making changes to people's homes to help them overcome any limitations or related disabilities caused by hypertension. In some cases, people may be unable to work and therefore lose the ability to fully support their families. This may affect the mental and physical health of those who live with or are dependent on someone with hypertension. This latter point is important as it highlights the additional costs to society outside of the scope of public service spending, such as the impact on the wider economy through worklessness and lost productivity in people of working age affected by hypertension.

There is a national ambition to find 80% of those who have hypertension and are undiagnosed. Just a 15% increase in the proportion of adults who are diagnosed would help to address the inequalities arising from hypertension and give people extra years with their families. It would also save £120 million per year that would otherwise be spent on related health and social care costs¹.

2.10 SCALE OF THE PROBLEM

Recorded prevalence is a term used to describe the known level of a disease or condition within a population. We are able to establish the recorded prevalence of hypertension through data recorded by GP practices. The way prevalence is calculated is by comparing the number of patients who have been diagnosed with hypertension in a GP practice to the total number of people registered at a GP practice. Many people with hypertension will be undiagnosed for a wide variety of reasons, which may include not regularly attending their GP practice. The COVID-19 pandemic will also impact on accuracy. Many people will not have attended routine GP appointments during 2020/21.

In cases where we see large numbers of people diagnosed with hypertension, this could be because more people have hypertension, or it could also mean that more people are getting their blood pressure checked and so more cases are being found. Another limitation in the data is that some groups could be under-reported as they are less likely to register with a GP or may not attend for routine screening¹². It therefore means there is difficulty in determining the true number of people living with hypertension in Medway. These data do,

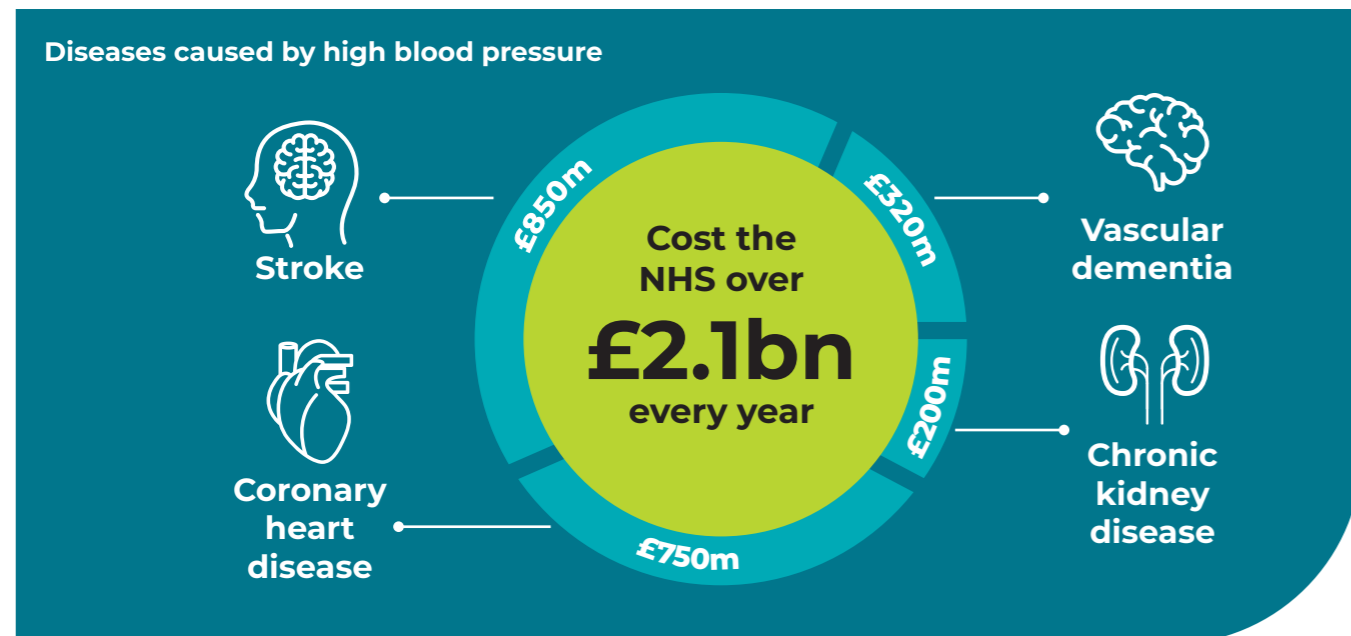
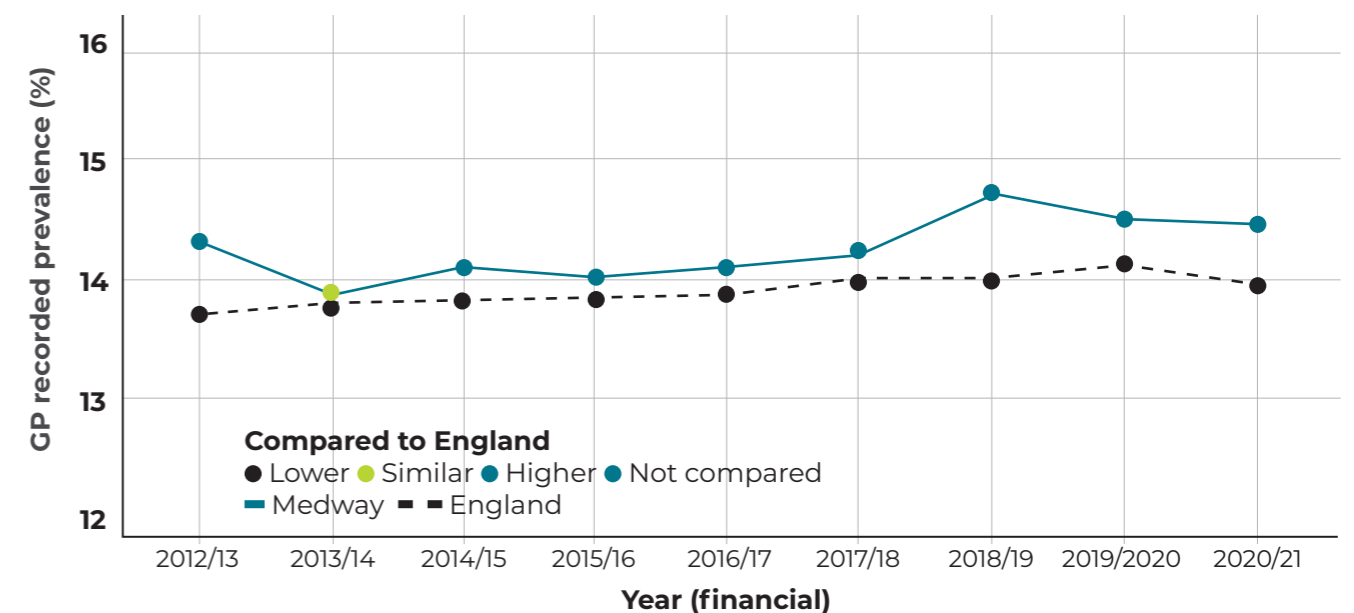


Figure 1: The percentage of recorded prevalence of hypertension in Medway and England for all ages (2012/13 – 2020/21)



however, provide an indication of patterns of prevalence across different population groups. Statistical analysis and modelling techniques are used to help improve our understanding of prevalence at a local level.

In 2020/2021, a total of 44,239 people registered with a GP in Medway had been diagnosed with hypertension. This represented 14.5% of people who were registered with a Medway GP practice. The prevalence of hypertension in Medway was significantly higher than the England rate, where 13.9% were diagnosed¹³. This is not a new phenomenon. Figure 1 provides an overview of the long-term trend of hypertension in Medway. This has remained stable over time and has been consistently higher than England as a whole.

The recorded prevalence of hypertension follows the general patterns described in terms of variance related to demography (older age) and wider environmental factors. The River electoral ward has one of the lowest prevalence rates (10.3%) whilst Rainham North has the highest (17.6%)¹⁴. Just over one third of wards have a significantly

higher recorded prevalence than England (Figure 2). The differences across and within wards will be associated with a range of issues. Not least the issues of deprivation, age, ethnicity, and sex, given the known interplay of these issues and their association with increased risks of hypertension.

The recorded prevalence data extracted from GP practices demonstrates the inequalities that exist for different groups of people in Medway¹⁵. The data set out in Figure 2 shows that hypertension rates are highest in Medway's least deprived wards however, when reviewing death rates from circulatory diseases for people of all ages (Figure 3), the highest rates of death can be seen in the most deprived wards¹⁶. As poorly managed hypertension can lead to the onset of CVD and early death, this data highlights the potential gap that exists in diagnosis rates between the most and least disadvantaged areas of Medway. It serves as a call to action to improve diagnosis rates across Medway, but particularly in our most disadvantaged communities. Section 2.10.1 provides further insight into this issue.

Figure 2: The GP recorded prevalence of hypertension for wards across Medway for all ages in 2020/21 compared to England.

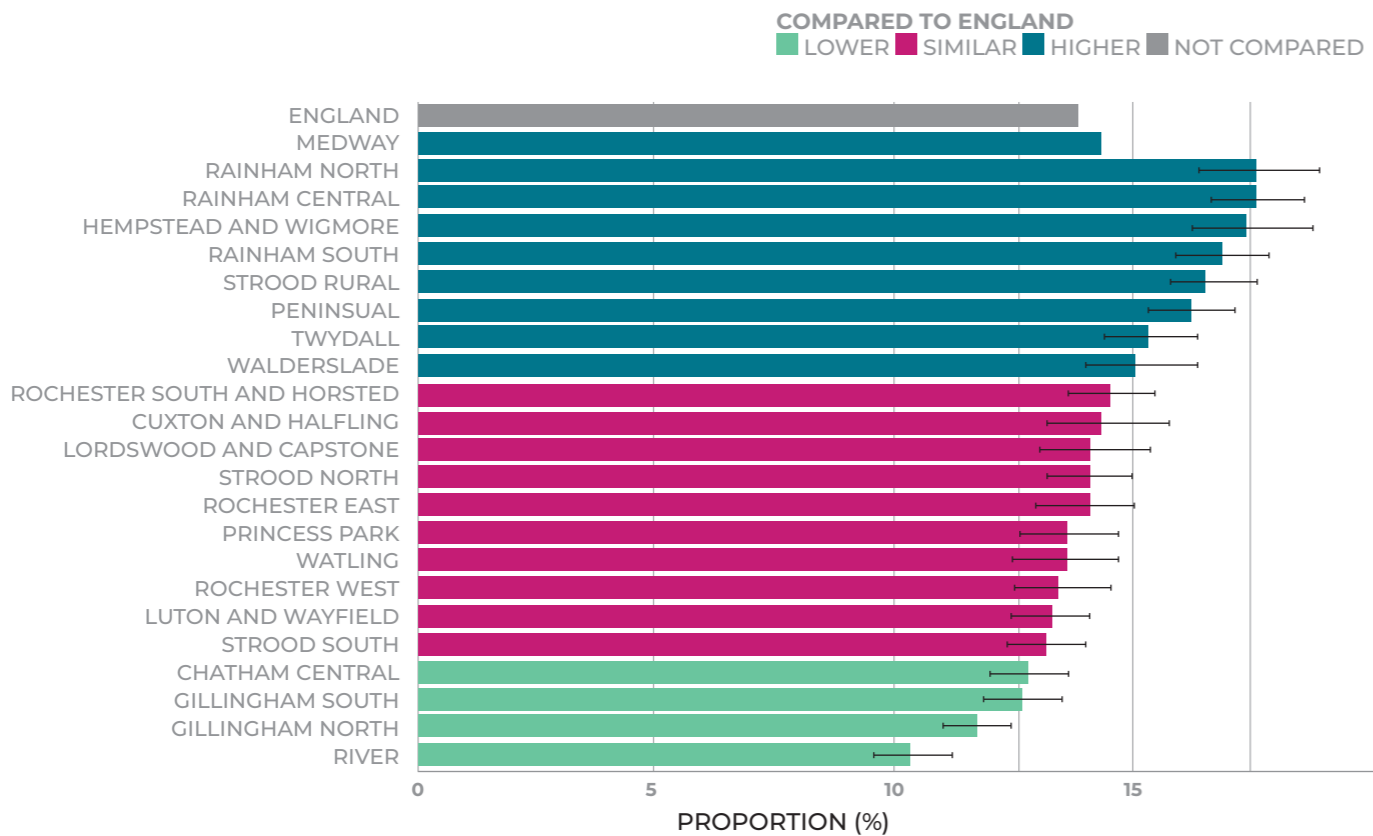
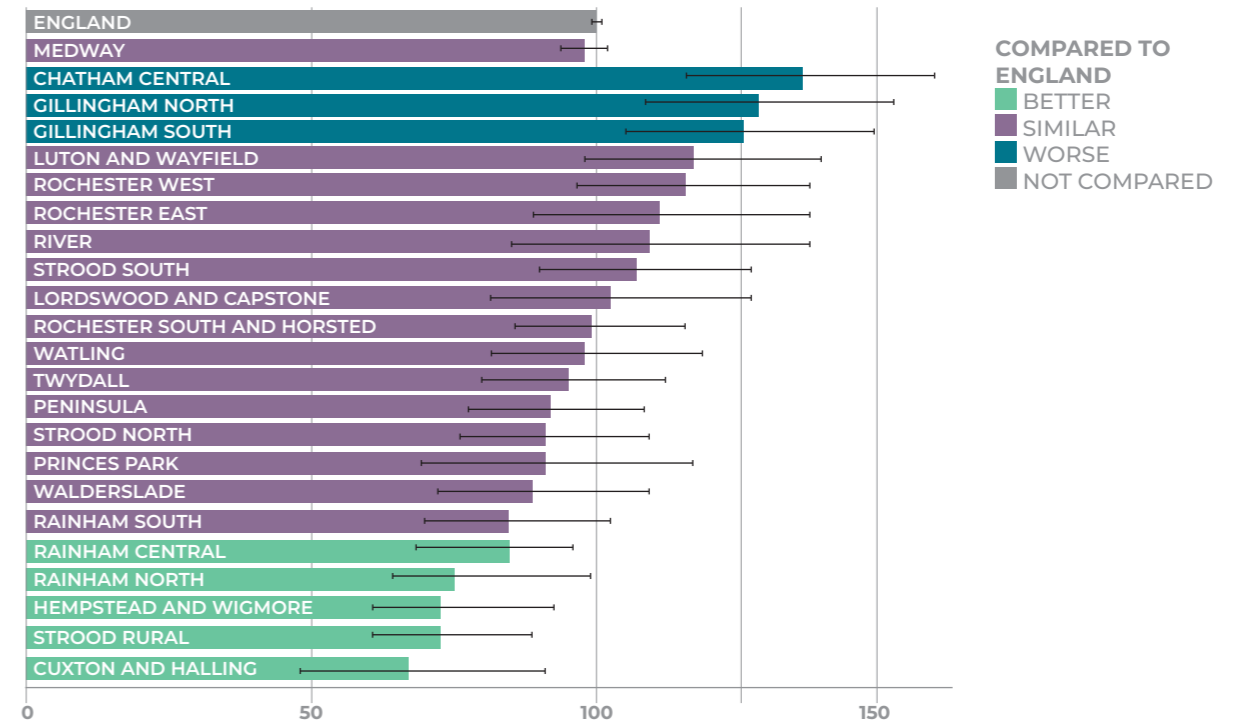


Figure 3: The standardised ratio for deaths from circulatory disease for persons of all ages in 2016 – 2020 compared to England.



2.10.1 RECORDED PREVALENCE IN MEDWAY BY AGE, SEX, ETHNICITY, AND DEPRIVATION

Medway's GP practice data shows the recorded prevalence of hypertension is similar for males (12.81%) and females (12.79%) in Medway¹⁵. The same data also shows that the lowest recorded prevalence of 0.4% is in people aged 20-29 years and that recorded prevalence increases with age. This can be seen in the prevalence rate for people over the age of 80 years which currently sits at

56.7% and is the highest prevalence out of all the age groups¹⁶.

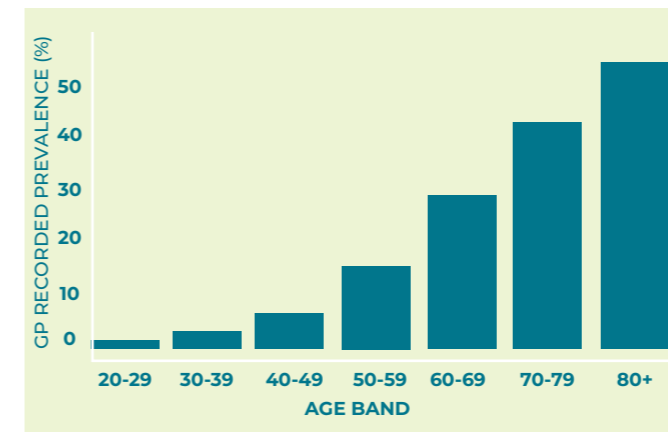


Figure 4: The GP recorded prevalence of hypertension by age group for those aged 20+ in Medway (2020/21)

When looking at hypertension rates by geographical locations in Medway, it can be seen that people living in wealthier areas are more likely to be diagnosed with hypertension than those living in deprived areas (Figure 5). These data show that people living in quintile five (the least deprived areas) have the highest recorded prevalence

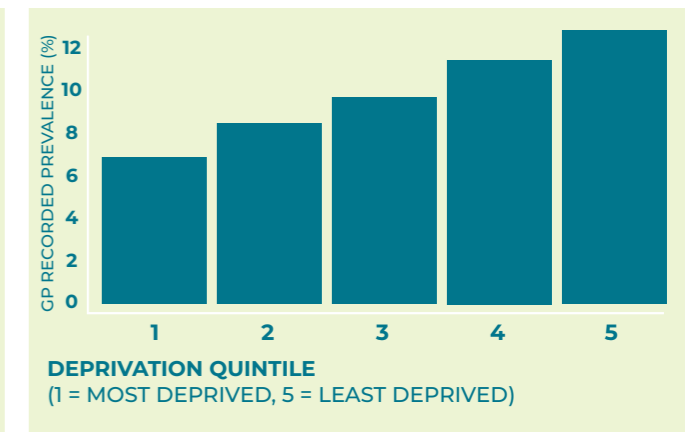


Figure 5: The GP recorded prevalence of hypertension grouped by local deprivation quintiles (IMD2019) for all ages in Medway (2020/21). One represents the most deprived quintile and five represent the least deprived quintile.

of 12.7%¹⁵ compared to 6.9% for those living in quintile one (the most deprived areas). Although this reflects similar patterns seen in national datasets¹³, it conflicts with evidence that suggests people living in deprived areas are more likely to have hypertension. One explanation for this may be that people affected by disadvantages may, for various reasons, be less likely to visit their doctor when their symptoms are mild, and less likely to take up the offer of regular health and wellbeing checks.

Across Medway, the GP recorded prevalence of hypertension is different for each ethnic group (Figure 6). The highest prevalence can be seen in the white population (15.1%)¹⁵. However, this does not consider the age distribution of each ethnic group. Generally, the white ethnic group has an older age profile and hypertension is an age-related condition.

Caution must be taken when interpreting these data as a large proportion of patient records have an unknown ethnicity. This may mean data on some ethnic groups may not be fully represented.

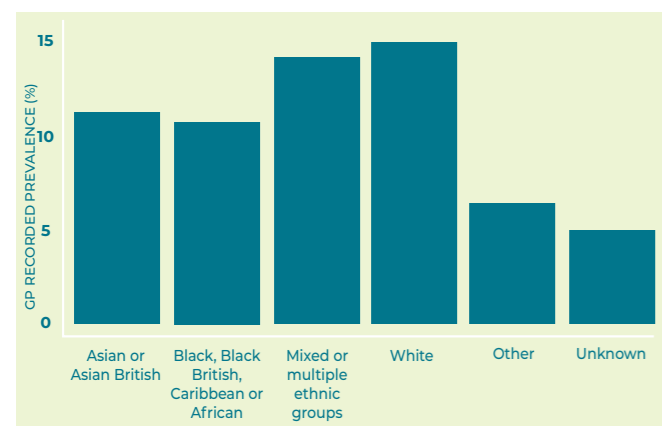


Figure 6: The GP recorded prevalence of hypertension by age group for those aged 20+ in Medway (2020/21)

2.10.2 UNDIAGNOSED HYPERTENSION IN MEDWAY

As the actual number of people with undiagnosed hypertension in Medway is not known, we cannot be certain of the actual prevalence of hypertension. However, in 2017, the prevalence based on GP practice data, was estimated at 27,911 population¹⁷.

2.10.3 FUTURE PROJECTIONS FOR HYPERTENSION PREVALENCE

Predictions for future prevalence of hypertension in Medway are influenced by several factors, many of which are likely to change. For example, being overweight is a risk factor and so if the number of people who are overweight increases, so will the number of people who develop hypertension. It is therefore difficult to make definitive projections for Medway in terms of actual cases.

There are, however, projections for hypertension risk factors for Medway and England.

- I. An increased population size coupled with an ageing population will likely lead to a rise in hypertension prevalence.
 - The population of Medway is expected to increase by 3.6% from 280,754 in 2022 to 290,734 people in 2040.
 - In this time, the proportion of those aged 65 and over is expected to increase from 16.5% to 20.0%. This will represent a 25.4% increase from 46,378 to 58,179 people¹⁸.
- II. Increased levels of being overweight or obese may also result in an increased prevalence of hypertension.
 - In the United Kingdom, it is estimated that 71% of adults will be overweight and 36% obese by 2040.
 - This increase is expected to be greater in more deprived areas, therefore increasing the relative deprivation gap for obesity prevalence between the most and least deprived quintiles in England¹⁹.
- III. Increased prevalence of diabetes may result in an increased prevalence of hypertension.
 - It is thought that 1 in 10 adults will be living with diabetes in 2030, with 1 in 3 adults being at increased risk²⁰.

Taken together, these data indicate that it is likely the prevalence of hypertension will increase over the next 20 years.

2.11 POLICY GUIDANCE AND STRATEGIC DRIVERS

2.11.1 NATIONAL POLICY AND GUIDANCE

The NHS Long Term Plan is the strategic document that describes the action the NHS will take to improve the health of the population of England. Addressing the impact of CVD is a clinical priority within the NHS Long Team Plan. There is an ambition to prevent over 150,000 heart attacks, stroke, and dementia cases over the 10-year period the plan covers⁶.

NHS England's CVD Prevention programme is designed to support the aims of the Long Term Plan by providing targeted interventions to maximise early diagnosis and treatment of high-risk conditions that can lead to CVD²¹. Key elements of the programme include an enhanced focus for both GPs and pharmacies to undertake work to identify people with hypertension. In addition, there is a focus on public health initiatives to raise awareness of the risk factors associated with the condition so the general public takes direct action to reduce their risks.

As part of action to tackle health inequalities and improve outcomes for people who are known to be affected by disadvantage and are at higher risk of poor health and early death, NHS England introduced a 'Core20PLUS5' initiative. The focus of this approach is set out in Table 1²².

Table 1: Priority groups identified by NHS England's CORE20PLUS5, where faster improvement can be made to save lives.

Core 20	The most deprived 20% of the population.
PLUS	This can include ethnic minorities, people with visible and non-visible disabilities and people with more than one health condition.
5	Five clinical areas of focus where people's health can be significantly improved, one of which is finding people with undiagnosed hypertension and ensuring they receive the best treatment.



2.11.2

LOCAL ACTION IN MEDWAY TO HELP PEOPLE WITH HYPERTENSION

Medway's Joint Health & Wellbeing Strategy sets out five themes to inform decisions about the provision of services across the health and care system²³. **Preventing early death and increasing years of healthy life, and reducing inequalities** comprise two of the five themes. The strategy emphasises the need to improve access to healthcare and services and ensure that increased effort is made to reach those who are most disadvantaged.

The Medway and Swale **Health and Care Partnership (HCP)** works alongside the **Kent and Medway Integrated Care Board (ICB)**. These arrangements ensure there is effective collaboration between the NHS, local authority, and other stakeholders, including the voluntary and community sector, the outcome being coordination and delivery of national policy at a local level. In terms of hypertension, the ICB oversees national policy directives that require GP practices to review their patient lists to identify people who fall within certain risk categories and who may be more likely to have high blood pressure but remain undiagnosed. Pharmacies operate a similar scheme also overseen by the ICB and the **Local Pharmaceutical Committee (LPC)**, whereby blood pressure checks are offered to their service users to identify people who unknowingly have the condition.

Medway's public health team commission and provide a range of services that can identify cases of undiagnosed high blood pressure. This includes the national **NHS Health Check** Programme. This initiative is for people aged 40-74 years. It involves a comprehensive health screen and blood pressure check every five years. The public health team also use their in-depth local knowledge to provide targeted opportunistic blood pressure checks across Medway. They liaise with GPs to ensure anyone who is found to have high blood pressure receives appropriate support²⁴.

In support of clinical and targeted activity, the Medway **Council Plan** prioritises reducing inequalities through the creation of healthy and active communities²⁵. The council plan provides a framework to help address issues associated with the wider determinants of health. One example is supporting action to create wealth and higher paid employment opportunities for residents. Another example is ensuring that any developments and planning applications take note of the required legislation to reduce environmental risk factors associated with high blood pressure. The Council also provides and maintains sports and recreational facilities, enabling local people to be active and take action to improve their physical health and mental wellbeing.

The provision of a comprehensive range of high quality and easily accessible public health services is key to preventing deaths and disability associated with high blood pressure. Action across a broad spectrum is required to tackle health inequalities. There needs to be robust and inclusive partnerships with voluntary and community sector organisations whose members have strong links with people at higher risk.

2.12 NATIONAL TARGETS

With more than one in four adults in England having high blood pressure and not knowing it, national ambitions to reduce CVD are underpinned by a focus on identifying people with hypertension and providing follow up treatment^{7,8}.

Goals to measure progress in diagnosis and treatment rates have been set out by the **Office for Health Improvement and Disparities (OHID)**:

- i) 80% of the expected number of people with hypertension to be diagnosed by 2029²¹
- ii) 80% of those already diagnosed to be treated in accordance with the standards set out by the **National Institute of Health and Care Excellence (NICE)**²⁶.

Additional targets are in place as part of the **NHS Health Checks** programme which provides routine screening for eligible people between the ages of 40 and 74 years and includes a test to detect the incidence of hypertension²⁴.

The use of local intelligence in delivering these programmes in a systematic, targeted and coordinated way is helping to identify cases of undiagnosed hypertension, and can lead to the most effective treatment being provided to manage the condition and enabling people to make better informed choices about their health and wellbeing.

80% of the expected number of people with hypertension to be diagnosed by 2029

3 Saving lives by helping people earlier

3.1 HOW MANY PEOPLE DIE EARLIER IN MEDWAY AND HOW MANY OF THESE LIVES CAN WE SAVE?

There are currently more than 5.5 million people in England with undetected hypertension¹. Based on 2017 data, it is estimated that approximately 27,911 residents in Medway are undiagnosed¹⁷.

For the period 2017-2019, 484 people in Medway under the age of 75 years died because of cardiovascular disease (CVD; Figure 7). This is expressed as a death rate of 71 people in every 100,000 people which is similar to the rate for the whole of England, 70 people in every 100,000 people¹⁶. Research suggests that 80% of early deaths due to this disease can be prevented¹.

For Medway, this means that 387 of the people who died during 2017-2019 could have been saved.

There is considerable work underway in Medway to identify residents who have undiagnosed hypertension. This work is carried out across the whole health and care system and involves a range of care providers including:

- I. General practice
- II. Pharmacies
- III. Public Health
- IV. Voluntary organisations, charities, and social enterprises
- V. Hospitals
- VI. Community Health Services

Figure 7: The standardised ratio for deaths from all cardiovascular diseases for persons under the age of 75 years 2017 – 2019, compared to England.

AREA	RECENT TREND	COUNT	VALUE		95% LOWER CI	95% UPPER CI
ENGLAND	-	102,224	70.4		70.0	70.9
South East Region	-	14,022	57.1		56.2	58.1
Slough	-	248	96.8		84.7	110.1
Portsmouth	-	412	90.2		81.7	99.4
Southampton	-	405	80.8		73.1	89.1
Isle of Wight	-	359	72.5		65.0	80.6
Medway	-	484	70.6		64.5	77.2
Brighton and Hove	-	411	68.7		62.1	75.8
Milton Keynes	-	408	67.0		60.6	73.9
Reading	-	206	64.9		56.2	74.6
Kent	-	2,764	63.3		61.0	65.7
East Sussex	-	1,058	58.8		55.3	62.5
West Sussex	-	1,413	55.6		52.7	58.5
Hampshire	-	2,089	52.1		49.9	54.4
Oxfordshire	-	890	50.8		47.5	54.2
Bracknell Forest	-	145	50.5		42.5	59.5
Windsor and Maidenhead	-	195	50.2		43.4	57.7
West Berkshire	-	211	47.1		41.0	54.0
Surrey	-	1,448	46.5		44.2	49.0
Wokingham	-	190	43.9		37.9	50.6
Buckinghamshire	-	-	-			

3.2 FINDING MEDWAY'S UNDIAGNOSED – WHAT GP PRACTICES ARE DOING

Diagnosis of CVD, including hypertension is a key priority for the NHS and this is reflected in services provided at a local level. GPs in Medway have signed up to an enhanced service contract, GP **Network Contract Directed Enhanced Service 2021/22**²⁸. This is a nationally developed contract aimed at CVD prevention and diagnosis. It sets out a requirement for GPs to proactively identify patients registered at their practices who are undiagnosed but are at increased risk of high blood pressure. Under the terms of this contract, priority is given to patients whose records state they have previously had an elevated blood pressure reading. However, additional opportunities exist for GPs to search for and identify patients who are at increased risk of undiagnosed hypertension because of certain characteristics. For example, GPs could search for patients who fall within one or more of the following categories:

- Patients above a certain age
- Postcode where the patient lives
- Patients who are overweight
- Patients who smoke
- Patients who belong to specific ethnic groups
- Patients who already have certain health conditions

Taking a targeted approach to include and invite those at higher risk provides an opportunity to focus resources on reaching those that need it most.

In addition to the nationally directed enhanced service contract, GP practices participate in several other initiatives designed to diagnose and treat hypertension. Details of these can be found in Chapter 4 which describes how GPs are required to treat and monitor those with hypertension, and Chapter 6 which describes the **CVDPrevent Audit**⁷ which focuses on quality improvement to help practices understand how many patients are potentially undiagnosed, undertreated or over treated.

How Marlowe Park Medical Centre provide a blood pressure checking service to their patients



Dr Subhro Mukherjee and his team at Aspire Medical Health in Medway provide both targeted and opportunistic blood pressure checking services to their patients. As part of the targeted service, patients identified at risk of high blood pressure receive a phone call or text message to invite them to come into the practice and have their blood pressure taken. They can do this either by booking an appointment with the practice nurse, healthcare assistant or through self-checking by using the free-standing blood pressure monitoring machine located in the waiting room. Alternatively, a loan of a blood pressure machine to use for self-measurements at home can be arranged for patients for whom this would be beneficial. Follow up actions are determined by the outcome of the blood pressure reading and the practice has a Standard Operating Procedure (SOP) that describes how follow-up care should be provided. Follow-up actions may include:

- i) A repeat blood pressure check at an appropriately timed interval.
- ii) Ambulatory blood pressure monitoring.
- iii) Routine Medication review.
- iv) Urgent appointment with appropriately trained clinician.

Patients carrying out a self-check by using the blood pressure monitoring machine in

the waiting room receive a printed receipt detailing the outcome of their test. They are required to hand this to the reception team who have been fully trained on the SOP and are able to arrange the most appropriate follow-up actions. Similarly, patients undertaking their own blood pressure readings at home with their own equipment or with equipment loaned by the GP practice can relay the results by using email, a digital based messaging service called AccuRx, by letter, or in person. The team at the practice follow the SOP regardless of which method is used by the patient.

3.3 FINDING MEDWAY'S UNDIAGNOSED – WHAT PHARMACIES ARE DOING

It is believed that detection of people with high blood pressure will have fallen during the COVID-19 pandemic. In 2021 the NHS introduced a new **Community Pharmacy Hypertension Case-Finding Advanced Service** to tackle this issue²⁹. A total of 76 pharmacies across Kent and Medway signed up to this scheme which sets out two stages for identifying people at risk of hypertension:

- i) On-site blood pressure check within the pharmacy.
- ii) If the on-site check shows hypertension, an ambulatory blood pressure monitoring device is loaned to the service user, free of charge. This enables a person's blood pressure to be continually checked over a 24-hour period, during both routine activities and periods of sleep.

These actions alongside national campaigns and local initiatives by Medway's public health team, are supporting progress in finding those with undiagnosed high blood pressure.

The **Community Pharmacy Hypertension Case-Finding Advanced Service** is a newly launched initiative to support the detection of hypertension in the community following evidence that pharmacies can have a vital role in supporting this national objective²⁹. The aim of this service is for pharmacies who sign up to the initiative, to work in partnership with GP practices to find and

treat those that are undiagnosed. Medway's public health team, in collaboration with the **Local Pharmaceutical Committee (LPC)** have been working with pharmacies to promote this service.

How Kamson's Pharmacy provide a blood pressure checking service to Medway residents



Kamsons Pharmacy offer blood pressure checks to residents aged 40 years and over who have no previous diagnosis of high blood pressure. If someone is found to have a blood pressure reading of 140/90 mmHg or higher, they can choose to take home a 24-hour ambulatory blood pressure monitoring machine and monitor their blood pressure for 24 hours, including at night.

Stuart Howell, the pharmacist at Kamsons Pharmacy, reports they carry out between five and 10 spot checks a month with results emailed to the resident's GP practice. The main practice they work with is nearby Courtview Surgery where the pharmacy staff have a dedicated contact person they can get in touch with if they have any concerns.

Case study:

A young man came into the pharmacy in his early twenties. He seemed very anxious and told Stuart he had a family history of heart problems. Because of this Stuart carried out a blood pressure check and then offered him the ambulatory blood pressure monitoring machine to take home. This showed that he had atrial fibrillation, (an irregular and often faster heartbeat), and needed to go to hospital immediately. The young man has since been back into the pharmacy to say he does not need to take any medication for his condition but has made changes to his lifestyle to manage it.

people needed urgent clinical attention (Table 2).

Table 2: Measure your Pressure; activity and outcomes

Number of clinics held across different communities.	23
Number of blood pressure checks carried out.	1,385
Number of people referred to GP as blood pressure fell within 'at risk' category.	252 (18%)
Of those deemed at risk, six people had blood pressure readings that required urgent clinical follow-up.	

Data captured during these interventions have been transferred to GP clinical systems to ensure patient records are kept up to date.

The **Measure your Pressure** campaign was implemented to support the international **May Measurement Month**. This is an annual event that focuses on identifying people with undiagnosed hypertension³⁰. Following the success of the campaign in 2022, there are plans to repeat this activity in future years.

Know Your Numbers Week is a national campaign held every September when the public health team also hold additional clinics at different locations across Medway³⁰. These localised campaigns provide the

opportunity for people to be made aware of their blood pressure, be educated on the risks, and empowered to make changes to improve their health.

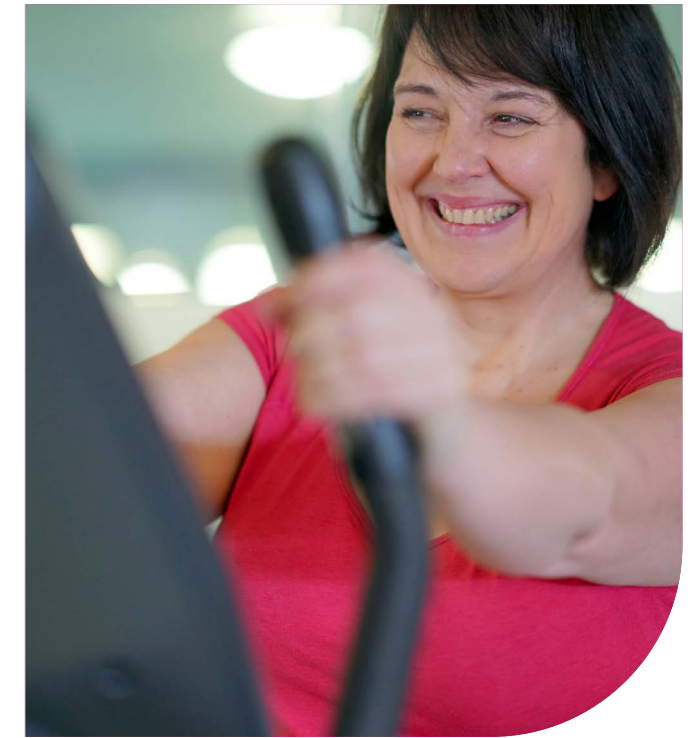
Further activities delivered by public health include the offer of blood pressure checks at people's places of work as part of the **Workplace Health Programme**. Supporting people in workplace settings is key to helping both employees and employers, stay productive and identify those who are at greatest risk of ill-health in the workplace.

The **NHS Health Check** is a prevention programme which aims to reduce the risk of heart attack, stroke and dementia in people aged 40-74 years. It achieves this by assessing the top seven risk factors driving the burden of disease in England including hypertension, and by providing individuals with behavioural support and, where appropriate, pharmacological treatment³¹. It is estimated that 1 in 27 health checks will lead to a diagnosis of hypertension³².

3.5 REGIONAL PROGRAMMES OF WORK TO INCREASE DIAGNOSIS RATES IN MEDWAY

The South East of England is challenged in terms of the detection and management of people who may be at risk of the effects of high blood pressure. There is a regional push to support the work of local areas to tackle hypertension, including Medway. To that end, the regional NHS team have established a **Cardiac Pathway Improvement Programme**. The programme launched a regional blood pressure campaign during May and June 2022. The focus of this campaign was the danger of undiagnosed and untreated hypertension, specifically within people from ethnic minority backgrounds.

It is important to measure the impact of any public health campaign and determine whether they have achieved the desired results. The common thread often revealed through evaluation exercises is the importance of working with a range of organisations and service providers to focus attention and resource on the area of care



that needs improvement. For hypertension care, a study carried out in the London Borough of Lambeth identified two key factors associated with the successful management of hypertensive patients³³:

- i) Strong clinical cardiovascular leadership.
- ii) Involvement of commissioning leads, medicines optimisation team and public health stakeholders in project development.

Taking forward the Lambeth study principles is critical to ensure effective and sustainable work to tackle high blood pressure.

3.6 MAKING EVERY CONTACT COUNT

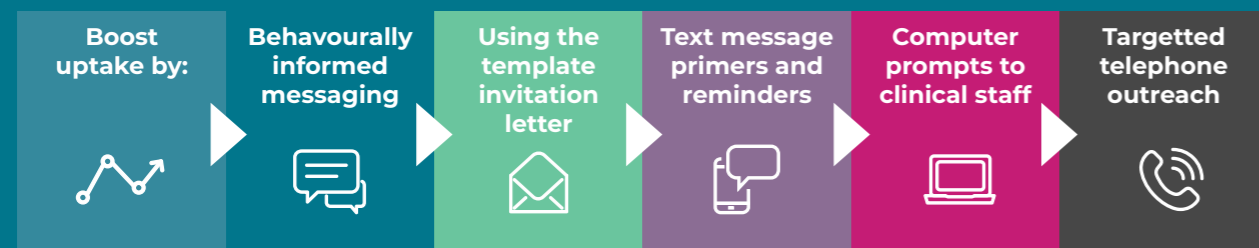
Making Every Contact Count is an initiative to encourage health and care professionals to use every engagement and conversation they have with patients or members of the public, as an opportunity to promote healthy choices and support people to adopt health enhancing behaviours³⁴. An example of this is when, during the COVID-19 pandemic in some areas, people were offered blood pressure checks when receiving their vaccination³⁵. There is scope for GP practices and pharmacies to offer blood pressure checks as standard practice alongside COVID-19 and flu vaccination clinics.

3.4 FINDING MEDWAY'S UNDIAGNOSED – WHAT THE PUBLIC HEALTH TEAM ARE DOING

In addition to the work carried out by GPs and pharmacies as part of their contracted services, Medway's public health team deliver a range of services to prevent the onset of ill-health. These include screening services to support early diagnosis of a range of health conditions including hypertension.

In May 2022, Medway public health delivered a **Measure Your Pressure** campaign in collaboration with local pharmacies, GP practices, and other organisations. This initiative resulted in 1,385 being people tested. Of these 252 (18%) had blood pressure that fell within the 'at risk' category and 6

The NHS Health Check diagnoses **1 new case** of high blood pressure in every **27 checks**



SINCE APRIL 2013 almost **5 million** people have benefited from an NHS Health Check

A total **46%** of people who were offered an NHS Health Check received one

3.7 COLLABORATION BETWEEN THE PUBLIC AND VOLUNTARY SECTOR

NHS England's recently published guidance entitled **Working in Partnership with People and Communities**. The aim of this guidance is to help health and care services work more closely with organisations within the voluntary, charitable, and social enterprise sector (VCSE). Improving collaboration will help local communities have more say about the way in which care is provided³⁶.

This guidance helps find people with undiagnosed hypertension. It supports and enables partnership working with pharmacies and VCSEs, to provide

information to the public about the risks of hypertension and the availability of blood pressure testing. In some cases, blood pressure checks can be carried out on-site at pharmacies and by staff at VSCEs. This approach has been well received by local people. These settings are often places that are easy to get to and people don't require appointments. It enables those who would benefit the most to have easy access to blood pressure checks. Chapter 6 provides a number of examples of innovative work being carried out by Medway's public health team and voluntary sector organisations to reach people who don't always take up the offer of screening or access services that are routinely available to the public.

4 Underdiagnosis, high quality treatment, and keeping to the treatment plan

4.1 UNDERDIAGNOSIS AND UNDERTREATMENT OF HYPERTENSION

There is significant variance in terms of health inequalities within Kent & Medway. Evidence has identified the links between higher levels of deprivation and early death. Undiagnosed and poor control of hypertension is associated with disadvantage and is likely to contribute to increasing health inequality.

Data to measure and monitor diagnosis and treatment of hypertension is fluid. Changes in diagnosis and measurement are influenced by things such as variations in the demography of the local population. Other factors, including national or local policy, and updated guidance for the management of hypertension and cardiovascular diseases (CVD) will also have a bearing on our knowledge.

Local data for Medway suggest 40% of people with hypertension are undiagnosed³⁷. These data highlights that of those who are diagnosed with hypertension, up to 39.6% of people did not have blood pressure of less than 150/90mmHg. Furthermore, 22.9% of patients had an increased level of risk for CVD for which treatment was not being received³⁷. There are many factors that will impact on the ability to address these issues, which cannot be resolved through medical intervention alone. It does, however, demonstrate the need for better identification of patients with hypertension, the need to raise awareness of the risks of untreated hypertension, and better management of CVD in higher risk patients.

Achieving this requires a coordinated population health management approach, working with diverse organisations and a wide range of residents. Medway has already

made substantial progress in terms of raising awareness amongst both the public and health and care professionals. This is in addition to the enhanced service provision in place through GP and pharmacy contracts.

NHS England have contracted with both GPs and pharmacies to require primary care providers to proactively case find those who are undiagnosed. The GP **Quality and Outcomes Framework (QOF)**³⁴, provides a contractual framework to improve the quality-of-care patients are given by rewarding practices with financial incentives. The QOF has specific achievement targets requiring GPs to regularly monitor those with established hypertension.

4.2 HIGH QUALITY TREATMENT OF HYPERTENSION

Treatment for hypertension is informed by the **National Institute of Health and Care Excellence (NICE)**. NICE guidance requires all those involved in providing treatment or care to ensure it is effective, value for money, and based on the highest standards of evidence and research. NICE have provided clear instructions and guidance on the diagnosis and management of hypertension. This includes approaches that should be used depending on how high a person's blood pressure reading is and specifies target blood pressure levels for different population groups and the most effective treatment options²⁶.

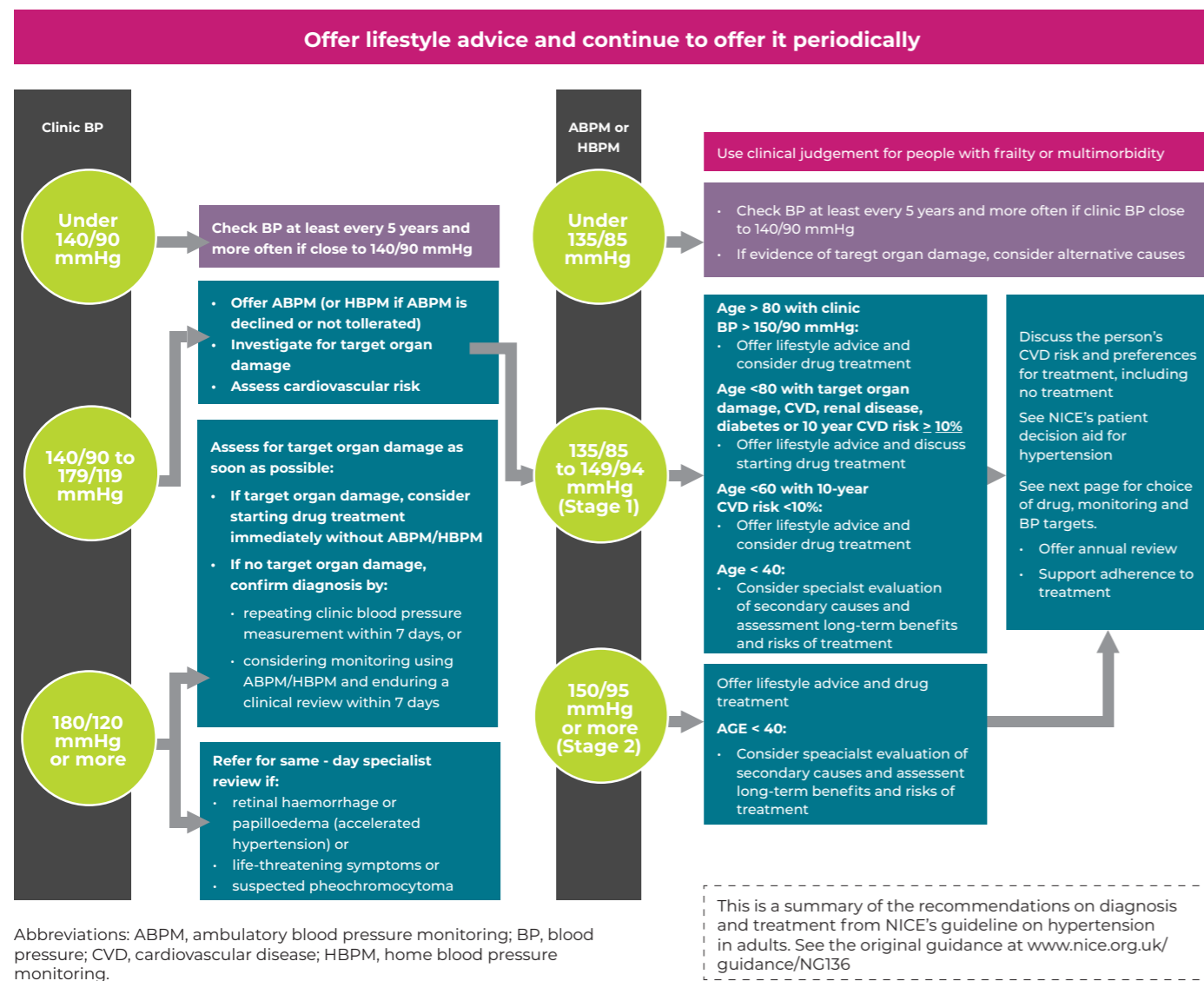
The guidance describes how hypertension should be treated depending on a person's age and ethnicity. It also takes into account other factors such as whether they are diabetic. In terms of ethnicity, NICE guidelines have specific instructions regarding the treatment that should be provided to people who are of black African or black Caribbean family origin, regardless

of their age²⁶. This emphasises the increased risk of avoidable ill-health, disability, and early death people from certain ethnic backgrounds with hypertension face.

It is important to note that although medication may be required to help manage high blood pressure, NICE guidance is clear that supporting people to address modifiable risks, for example changing their

diet, losing weight, being more physically active, and stopping smoking should be at the forefront of the advice given. It reaffirms that prevention has a key role to play in tackling this significant public health challenge. Figure 8 provides an overview of NICE guidance for the management of hypertension.

Hypertension in adults; diagnosis and treatment



Abbreviations: ABPM, ambulatory blood pressure monitoring; BP, blood pressure; CVD, cardiovascular disease; HBPM, home blood pressure monitoring.

Figure 8: NICE Guideline [NG136]. Hypertension in adults: diagnosis and management.

4.3 SUPPORTING PEOPLE DIAGNOSED WITH HYPERTENSION

As already stated, there are many reasons for inadequate blood pressure control. Findings from a population-based study in the UK found that 61.9% of patients had uncontrolled hypertension. Key issues and risk factors impacting on poor control were older age, higher alcohol use, being from a black ethnic group, and obesity³⁸. This study also found people with more than one medical condition appeared to have better control of their blood pressure. This may be because these individuals have more frequent interactions with healthcare staff.

Another factor contributing to poor or inadequate blood pressure control is where people diagnosed with hypertension do not take the medication prescribed to help manage the condition³⁹. Causes of poor adherence can be categorised into the following groups⁴⁰:

- Demographic (e.g., employment, income, age, ethnicity, sex)
- Socioeconomic (differences between people because of their financial situation)
- People with hypertension who go on to develop other conditions that affect their health
- Therapy related (the types of medication prescribed)
- Healthcare team and healthcare system related factors
- Patient factors (people may be too busy or have stressful things going on in their lives)

Indications of non-adherence to treatment can include people failing to collect prescribed medication from the pharmacy, or when patients don't ask for a repeat prescription from their GP. There may also be cases of patients feeling unwell or their symptoms worsening for other diseases they may have.

Strategies to help people keep to their treatment plan include the use of remote medication monitoring systems. These are known as telemonitoring devices, telehealth



or digital monitoring/health⁴¹. Community intervention programmes have also proven to be effective⁴³⁻⁴⁵. For example, a trial carried out in three areas of Scotland and one area of England (Kent), found telemonitoring for glucose and blood pressure in patients with type 2 diabetes improved diabetes management, improved motivation and was well-received by those who participated in the programme⁴²⁻⁴³.

Kent and Medway have successfully trialed remote monitoring of patients with COVID-19⁴⁴. It stands to reason that a wider application of telehealth in Medway could improve efforts to support people to manage blood pressure more effectively⁴⁵. This is supported through findings from the evaluation of **May Measurement Month**³⁰. The use of self-monitored blood pressure, with or without telemonitoring, led to significantly lower blood pressure than was achieved by adjustments following face to face consultations in a clinic alone⁴⁶. Empowering people to be more proactive and, use remote monitoring to manage their blood pressure and medication has minimal impact on the workload of doctors and other clinicians⁴⁷. When followed up over a longer term, home blood pressure monitoring

and pharmacist management significantly reduced adverse cardiovascular events and reduced costs compared to usual care⁴⁸.

4.4 THE ROLE HOSPITALS CAN PLAY IN IMPROVING DIAGNOSIS AND TREATMENT

Although GPs and primary care teams are predominantly involved in finding and managing people with hypertension, acute hospitals can offer additional ways to tackle this serious challenge to public health. An example of good practice was the recent **Hypertension Support** scheme. This involved a group of hospitals known collectively as the **East Kent Hospitals University NHS Foundation Trust (EKHUFT)**. The clinical pharmacy teams in each of the hospitals, alongside data science teams, identified patients receiving hospital care who were also registered at local GP practices, who would benefit from a blood pressure medication review. Once the patients were identified, the hospital pharmacy teams were able to recommend adjustments to medication. They also enabled people to access a clinic to see a consultant either virtually or in-person. As part of this scheme, healthcare workers were able to access educational resources



to enhance their knowledge of using technology to identify patients at risk. They were also supported to better understand how to diagnose hypertension and learn more about prescribing the best treatment and appropriate management or follow up of conditions.

4.5 ENHANCING HEALTHCARE PROFESSIONALS' SKILLS AND KNOWLEDGE

Continuous professional development to enhance the skills and knowledge of healthcare professionals is key to delivering a hypertension diagnosis and treatment service that meets the standards set out by the **National Institute of Health and Care Excellence²⁶**. Improving the knowledge and skills of health and care professionals to be able to make more effective use of any contacts they have with people living with hypertension is vital. This will make them better placed to empower people and support those who may not be aware of how severe the consequences of poorly managed hypertension can be and should lead to those diagnosed taking their medication as prescribed and improve adherence to treatment.

CASE STUDY – AN EXAMPLE OF EDUCATIONAL WORK DELIVERED ACROSS KENT AND MEDWAY

To address the wide disparities in diagnosis rates and treatment standards across Kent and Medway, the Kent and Medway ICB launched a hypertension support package for GP practices. Dr Michael Jackson, Specialist Cardiology Pharmacist at **East Kent Hospitals University NHS Foundation Trust**, led the clinical pharmacy team to identify and prioritise patients who would benefit from a hypertension medicines review. Dr Jackson obtained his doctorate by researching the psychology of medication taking behaviours and his expertise in this area has been invaluable

in developing a comprehensive training resource that addresses the issue from the viewpoints of both the healthcare professional and the patient. Dr Jackson's team also arranged to mentor clinicians and pharmacists based in GP practices. One component of the work was the development of a training course short enough to be delivered during a lunch break but detailed enough to provide healthcare professionals with the knowledge and skills needed to improve their diagnose and treatment rates.

The key objectives of the session include:

- I. An overview of nationally set diagnosis and treatment targets and how practices are performing against these.
- II. Knowing the practice population and how to use practice-based technology to identify patients at risk of hypertension.
- III. Understanding how to assess and improve patients' medication taking behaviours, including recognising barriers patients encounter that can prevent them from taking their medication

Dr Jackson began by delivering training to individual practices identified as having low diagnosis and treatment rates. The training course has since been extended to groups of practices that sit within **Primary Care Networks (PCNs)**.

The inclusion of identification of patients and overcoming barriers to taking medication means that healthcare professionals and patients can work together to and agree put in place an approach that works for the patient and for the practice. This encourages the patient to take shared ownership of managing their condition and makes the ongoing management of hypertension more sustainable.

5 Prevention

5.1 THINGS THAT CAN BE DONE TO PREVENT THE ONSET OF HYPERTENSION

The **World Health Organisation (WHO)** recommends a range of actions commonly referred to as **lifestyle changes** that people can take to prevent hypertension. These include⁴⁹:

- I. Avoiding the use of tobacco.
- II. Being physically active on a regular basis.
- III. Reducing salt intake (to less than 5g daily).
- IV. Eating more fruits and vegetables.
- V. Limiting the intake of foods high in saturated fats.
- VI. Eliminating/reducing trans fats in diet.
- VII. Reducing alcohol consumption.

The actions recommended by the WHO are an important part of preventing hypertension and better managing the condition if it is diagnosed. It is however important to recognise the social context of so-called lifestyle factors. As already identified, many people due to their social circumstances may not possess the ability to afford to include more fruits and vegetables in their diets. There may also be disparities related to ethnicity, or people with learning disabilities, which may make it more challenging to support them to adopt health enhancing behaviours. It is therefore important to build on the community and voluntary engagement work to better understand how to support people in need.

5.2 SMOKING AND CARDIOVASCULAR DISEASE

It is estimated that smoking is responsible for 15,000 circulatory deaths every year in the UK⁵⁰. This is equivalent to 41 deaths each day, the majority of which are avoidable. Tobacco use is the leading modifiable risk factor for early death in England. People who smoke are more at risk of developing cardiovascular disease (CVD). They are also more likely to have poorer outcomes if diagnosed, and

twice as likely to die from a CVD related incident than those who have never smoked. Research has found that stopping smoking is associated with a significantly lower risk of CVD within 5 years of quitting compared to smokers who do not quit⁵¹. Helping smokers diagnosed with CVD or hypertension stop smoking is essential to reduce the risk of adverse health outcomes.

5.2.1 HOW SMOKING INCREASES LIKELIHOOD OF HYPERTENSION

Cigarette smoke contains thousands of chemicals which damage the body in many ways. Smoke inhaled from cigarettes contain a poisonous gas called carbon monoxide. This gas reduces the amount of oxygen that can be carried by the blood, resulting in tissues being starved of oxygen, causing shortness of breath and an increased heart rate. Smoking increases the amount of fibrinogen (a protein that causes blood to clot), as well as making blood platelets stick together more. One of the chemicals in cigarettes (acrolein), damages the lining of the arteries and affects the way the body processes cholesterol, allowing higher amounts to remain in the blood system. The impact of this is that blood becomes thicker and stickier. This process places more pressure on the heart which has to work harder to pump it around the body. Over time, the combined impact of these changes cause narrowing of the blood vessels and increase the risk of blood clots that can create blockages leading to strokes and heart attacks⁵¹.

5.2.2 ADULT SMOKING PREVALENCE

Smoking prevalence in the general population in Medway for 2020 is similar to the England average, but for people who work in routine and manual jobs, the percentage who smoke is significantly higher⁵².

Those from lower socio-economic groups and who experience the greatest health inequalities are more likely to be employed

Table 3: Smoking prevalence in Medway compared to the South East and England

Population Group	Medway	South East	England
Smoking prevalence in the general population.	12.8%	11.1%	12.1%
Smoking prevalence in those working in routine and manual employment.	27.9%	20.1%	21.4%

in routine and manual jobs. They are more likely to smoke, and experience smoking related illnesses and early death⁵³. Smoking prevalence is known to be higher in areas of deprivation by as much as four-fold when compared to wealthier areas^{54,55}. This finding corresponds to health inequalities patterns and trends associated with CVD. The proportion of people living with CVD is greater in areas of deprivation. In terms of the impact of these combined risks, it should be noted that a person is four times more likely to die from CVD if they live in some of the most deprived areas in the country, and 30% more likely to have hypertension⁵⁶. Smoking is therefore one of the most significant preventable risks to health and a major cause of health inequality. It places a disproportionate burden on people in disadvantaged communities and those working in routine and manual occupations. All efforts need to be undertaken to prevent people from starting smoking and support people who smoke to stop.

The World Health Organisation (WHO) recommends a range of actions commonly referred to as lifestyle changes that people can take to prevent hypertension.

5.2.3 WHAT ARE WE DOING TO REDUCE SMOKING PREVALENCE?

There are a number of initiatives in place focused on reducing smoking in Medway. These include policy actions to prevent people taking up smoking in the first instance, as well as reducing the availability and sale of illegal tobacco products, including to minors.

Medway Council commission stop smoking services across several settings including GP practices and pharmacies. There is also a dedicated specialist Medway Stop Smoking Service that offers a range of options to the local population, including:

- Face to face support at the Smokefree Advice Centre in Chatham
- Face to face support at two clinics within the local community
- Telephone support
- **'Text to Quit'** messaging service

Medway NHS Foundation Trust (Medway Maritime Hospital), is developing a programme of support for smokers who are admitted to hospital. Any smoker initially supported in the hospital will receive additional support via pharmacies when they are discharged into the community⁵⁹.

Other initiatives in Medway are focussed on protecting both smokers and non-smokers from the harms caused by tobacco include:

- Smokefree homes where adults are encouraged to protect children from the effects of tobacco smoke
- Smokefree workplace policies

5.3 PHYSICAL ACTIVITY AND HYPERTENSION

Being regularly physically active has been proven to lower blood pressure⁵⁷ and help keep the heart and blood vessels healthy³⁰. Research has shown that the risk of heart and circulatory disease can reduce by up to 35% for those who are physically active⁵⁸. Regular activity makes the heart stronger, allowing it to pump blood more efficiently around the body. This reduces the pressure on the arteries and helps blood pressure to stay at a healthy level⁵⁸.

Globally, physical inactivity is the 4th leading risk factor for early and avoidable death and accounts for 6% of all deaths. People who have a physically active lifestyle have a 20-35% lower risk of CVD, coronary heart disease and stroke compared to those who have a sedentary lifestyle⁵⁹.

Exercise is an important and highly effective strategy in the management of many CVDs and has been shown to reduce CVD and early death regardless of age, sex, ethnicity, or the presence of more than one health condition⁶⁰. **The European Association of Preventative Cardiology** has produced guidelines that recommend physical activity as a primary intervention to help people with hypertensive reduce their risks **The National Institute of Health and Care Excellence (NICE)**, highlights the important role that exercise plays to improve health outcomes for people with CVD and hypertension⁶¹.

5.3.1 PHYSICAL ACTIVITY LEVELS IN MEDWAY

Physical inactivity is sometimes referred to as being 'sedentary'. Approximately 23.8% of Medway adults report they are physically inactive undertaking less than 30 minutes of activity per day. This is similar to the England average which currently sits at 23.4%. The Chief Medical Officer for England recommends that adults undertake a minimum of 150 minutes (2.5 hours) of moderate physical activity, or 75 minutes of vigorous physical activity per week⁶².

5.3.2 INCREASING PHYSICAL ACTIVITY IN MEDWAY

There are a range of options and support available to enable Medway residents to be regularly physically active. These include leisure centres, parks and green spaces, and a range of other recreational pursuits. There are bespoke programmes and initiatives including the annual **Medway Mile**.

The public health service offers a number of bespoke opportunities and interventions for local people tailored to their needs, which include:

- **Wellbeing Walks.**
- **Free swimming** for under 16's and over 65's.
- **Nordic Walking**, including specialist walks for people with Parkinson's Disease
- **Cycling groups.**
- **Man vs Fat** – football for men where both goal scoring and weight loss impact a team's performance.
- **Walk in the Park** – using outdoor gym equipment.
- **Let's Get Active** - classes for people with underlying health conditions.
- **Active Medway community projects** – establishing activity sessions in sedentary groups (e.g., for people living in purpose-built accommodation that provides different levels of care and support to help people remain independent, working with voluntary sector).
- **Small Steps, Big Changes** – for people with long term conditions.
- **Active Referrals** – specialist programme for people with long term conditions.

Recognising that people may want to get active in other ways, the public health team have created an online **Everyday Active** website. This enables people and health and care professionals supporting individuals

CASE STUDY – LET'S GET ACTIVE CLASSES TO HELP MANAGE BLOOD PRESSURE FOLLOWING A HEART ATTACK

Peter first joined a **Let's Get Active** class in 2014 after a heart attack led to him having stents fitted. Then in 2021, Peter experienced serious chest pains and had to have a triple bypass and valve change. Peter has high blood pressure and is taking medication to manage this.

Peter signed up for the **Let's Get Active** class again in early 2022 and attended Lordswood Leisure Centre where the classes are run. Peter attends a class twice a week on a Monday and Wednesday, and also goes to the gym for an hour and half every Wednesday. These gym sessions are designed by **A Better Medway** physical activity instructor who is there throughout to guide Peter as he exercises. Since joining the class Peter's blood pressure has significantly improved. At the start of 2022 it was 136/70 mmHg. Six months later, in June, it was 118/58 mmHg.

Peter has also been suffering from hip pain and was concerned that he would need a hip replacement. The physical activity team have been able to tailor his exercise routine to help with this and he reports that 'it has helped immeasurably.' Peter is happy to say that, thanks to this improvement, he was recently able to enjoy a three-day trip to Alton Towers with his grandchildren. He walked approximately 10 miles a day with no discomfort.



to search for and access a broad range of activities available in the local community.

5.4 WHY WEIGHT IMPACTS HYPERTENSION

Being overweight is a risk factor for both developing hypertension and worsening the impact of it. Whilst there are genetic links to hypertension, research evidence has demonstrated a direct relationship between poor diet and lifestyle, and increased weight and blood pressure levels⁶³.

Excess weight and body fat make the heart work harder to pump blood around the body and this puts strain on the heart and blood vessels, resulting in raised blood pressure. This is especially true if the weight is carried around the waist⁶³.

In the UK, one in four adults are classed as obese and a further 62% are overweight (Figure 9). Obesity is defined as having a body mass index (BMI) of more than 30 kg/m² and is a primary risk factor for hypertension⁶⁴. Britain has the second highest rates of obesity in the world and the largest in Europe⁶⁴. There are 7 million cases of diabetes, 6.5 million cases of heart disease and stroke and 500,000 cancer cases linked to obesity. Hypertension is twice as common in obese adults compared to those with a normal weight⁶⁴.

Figure 9: Proportion of people overweight in the UK

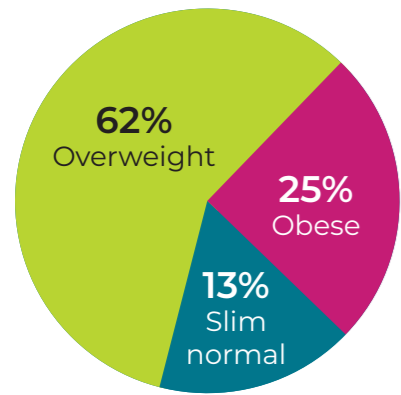
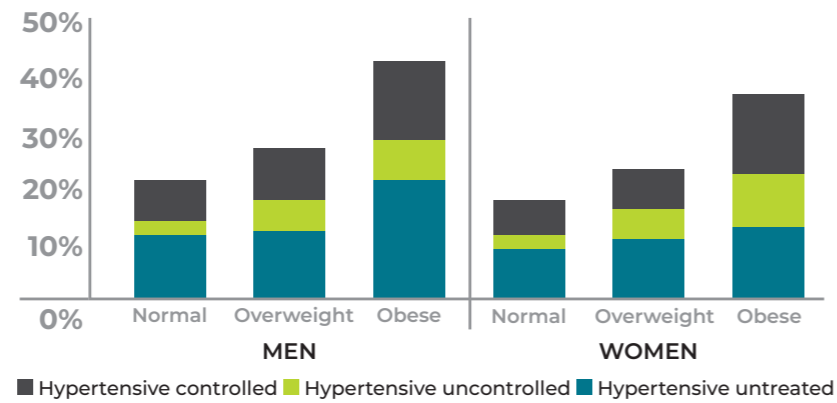


Figure 10: The relationship between weight and hypertension



The relationship between excess weight and high blood pressure can be seen in recent figures for the UK, (Figure 10) which show that 43% of obese men and 37% of obese women have high blood pressure, compared to 21% of men and 18% of women classed as a normal weight⁶⁴

Weight and obesity within Medway are of concern. Current data shows that 69.6% of adults in Medway are either overweight or obese, a figure higher than the England average (Figure 11)⁶⁵

Figure 11: People aged 18 years and over in Medway who are overweight or obese, compared to England. C16 - Percentage of adults (aged 18+) classified as overweight or obese 2021/21

AREA	RECENT TREND	COUNT	VALUE		95% LOWER CI	95% UPPER CI
ENGLAND	-	-	63.5		63.2	63.7
South East Region	-	-	62.4		61.8	62.9
Medway	-	-	69.4		65.0	73.9
Milton Keynes	-	-	69.3		65.0	73.5
Portsmouth	-	-	65.4		60.9	69.9
Southampton	-	-	65.0		60.6	69.4
East Sussex	-	-	64.9		62.8	66.8
West Sussex	-	-	63.8		62.1	65.5
Reading	-	-	63.5		59.0	68.1
Bracknell Forest	-	-	63.5		58.9	68.1
Hampshire	-	-	63.2		61.8	64.6
Kent	-	-	63.2		61.8	64.5
Slough	-	-	61.9		56.7	66.9
Isle of Wight	-	-	61.7		57.2	66.3
West Berkshire	-	-	61.5		56.8	66.3
Wokingham	-	-	60.2		55.3	64.8
Surrey	-	-	59.2		57.8	60.6
Brighton and Hove	-	-	58.8		54.3	63.4
Oxfordshire	-	-	58.1		56.0	60.1
Windsor and Maidenhead	-	-	57.0		52.3	61.6
Buckinghamshire	-	-				

The trend for excess weight is repeated across several population groups in Medway (Table 4)⁶⁵. This pattern, together with the link between weight, hypertension, and other diseases, highlights the need to engage individuals and families in conversations and actions that lead to rebalancing calorie intake and promotion of healthier food choices and increasing physical activity levels.

Table 4: Percentage of people overweight or obese in Medway

Population group	Medway	England
Adults (aged 18 years +)	69.6%	63.5%
Pregnant women	26.9%	22.1%
Reception aged children (4 – 5 years old)	25.5%	23%
Children in Year 6 (10 – 11 years old)	36.9%	35.2%

Table 5: Healthy weight support programmes provided by A Better Medway

Programme Name	Course features and benefits
Tipping the Balance	Lifestyle information and weight management for people with a high body mass index.
Healthy Way	A free 12-week course to help people learn simple habits to use on a daily basis that will lead to a healthier weight.
Virtual Weight Management	Weight loss support for people who find it easier to participate online.
Man vs Fat	Bespoke sport (football) related weight loss programme for men.

In addition to the above, a range of cookery programmes are available to help people make healthier choices about the food they eat, and the way meals are prepared.

5.4.1 WHAT IS HAPPENING TO TACKLE EXCESS WEIGHT

The World Health Organisation (WHO), recommends a range of measures to prevent hypertension including increasing physical activity and adopting a healthy diet⁹. For those who already have hypertension, management includes adopting the WHO guidelines as well as reducing and managing stress, regularly checking blood pressure, making sure that the medication regime is followed, and managing other health conditions. The Association of UK Dietitians (BDA) recommends that reducing calorie intake and increasing daily physical activity is the best way to lose weight and reduce waist size⁶⁶.

Medway's public health team provide a range of free programmes to support and enable families, children, and young people to manage and reduce their weight.

5.4.2 CHILDREN AND HYPERTENSION

Hypertension in children was once considered rare but has become increasingly common. Research suggests a link with obesity and other risk factors, including a family history of hypertension and an ethnicity related risk for developing the disease. Obese children are reported to have a 3-fold higher risk of hypertension than non-obese children⁶⁷.

The benefits of weight loss for blood pressure reduction in children have been demonstrated in different types of studies and it has been recommended that obesity in childhood should be considered as a chronic medical condition that is likely to require long-term management⁶⁷.

5.4.3 CASE STUDY FROM THE HEALTHY WAY INTERVENTION

Healthy Way provides an opportunity for service users to discuss a variety of topics that contribute to achieving and maintaining a healthy weight. Information is provided about food labelling, portion sizes, bone health, the importance of sleep, increasing activity, diabetes, cholesterol, and managing stress. See participants' feedback below.

5.5 DIET AND HYPERTENSION

In the region of 30% of preventable ill health and mortality from noncommunicable diseases, including hypertension, can be associated with poor diet and lack of physical inactivity. Factors such as excessive calorie intake, or the absence of a sufficient and balanced diet, for example consuming too much fat, salt, and sugar, increase the risk of hypertension⁶⁸.

Adults should have no more than six grams of salt a day which is about one teaspoon. It is the sodium in salt that contributes to high blood pressure and sodium is present in all types of salt including sea salt, flakes, crystals, and flavoured salt. Salt makes the body hold

onto water. Eating too much of it means the extra water in the blood increases pressure on the walls of blood vessels and raises blood pressure⁶⁹.

For people who already have hypertension, too much salt will raise blood pressure further and may mean that blood pressure medication does not work as well as it should. Cutting down on salt is one of the simplest ways to lower blood pressure and will start to make a difference very quickly⁷⁰.

There is clear evidence that public health initiatives such as lowering the amount of salt, saturated fat, and calories in processed and prepared foods, alongside being more physical, can have a positive impact and reduce blood pressure at a population level⁷⁰.

It is recognised that it is sometimes a challenge for people, particularly those who are most disadvantaged to maintain a balanced diet. The latest data suggests 56.7% of the population in Medway are meeting the recommended '5-a-day' on a 'usual day'⁷¹. Although this is similar to the England average of 55.4%, there remains scope for improvement.

Figure 12 provides an overview of the current proportion of people whose diet includes five or more fruits and over vegetables per day.

Figure 12: Proportion of the population meeting the recommended '5-a-day' on a 'usual day' (adults) 2019/20

AREA	RECENT TREND	COUNT	VALUE		95% LOWER CI	95% UPPER CI
ENGLAND	-	-	55.4		55.2	55.7
South East Region	-	-	58.3		57.8	58.8
Brighton and Hove	-	-	65.3		60.9	69.5
Isle of Wight	-	-	64.0		59.8	68.2
East Sussex	-	-	61.0		59.0	62.9
Windsor and Maidenhead	-	-	60.6		56.6	64.8
West Sussex	-	-	60.6		58.9	62.2
Oxfordshire	-	-	60.2		58.3	62.0
Hampshire	-	-	59.1		57.8	60.5
West Berkshire	-	-	57.7		53.3	62.0
Bracknel Forest	-	-	57.5		53.0	62.1
Surrey	-	-	57.5		56.2	58.8
Wokingham	-	-	57.2		52.9	61.7
Reading	-	-	56.8		52.2	61.4
Milton Keynes	-	-	56.8		52.5	61.1
Medway	-	-	56.7		52.3	61.2
Kent	-	-	56.3		55.0	57.6
Southampton	-	-	54.1		49.6	58.5
Slough	-	-	49.7		45.4	54.0
Portsmouth	-	-	49.7		45.1	54.1
Buckinghamshire	-	-				

The **Active Lives Survey** is a national study of the eating and physical activity habits of the British population. Results from this survey undertaken between 2015/16 and 2017/18 found 54.8% of adults aged sixteen and over consumed five or more portions of fruits and vegetables a day ('5 a day') in 2017/18. White British adults were the most likely out of all ethnic groups to eat five a day, with

55.9% doing so. The percentage of adults in the Black, Asian, Chinese, and Mixed ethnic groups who ate five a day was lower than the national average (Table 6)⁷². There is consequently a need to look at how to support some ethnic minority communities to increase consumption of fruits and vegetables.

'I enjoyed every session equally. Each one was relevant to my own goals. The whole course has given me the road to improve my health which I will definitely continue'.

'Each session has given me the inspiration to change my own personal lifestyle'

'Really enjoyed the course. I learnt lots of new information which will inform my healthy living choices'.

'I just want the government to extend this kind of training to every part of the UK in order to minimise obesity and an unhealthy way of living'.

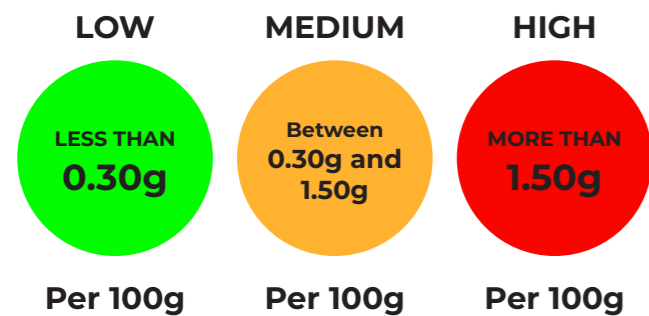
Table 6: Percentage of adults aged 16 years and over eating '5 a day' by ethnicity over time.

Ethnicity	2015/16	2016/17	2017/18
	%	%	%
All	56.8	57.4	54.8
Asian	47.5	48.9	47.0
Black	46.4	45.7	44.2
Chinese	57.2	51.1	50.3
Mixed	53.3	56.0	50.7
White British	57.9	58.4	55.9
White other	58.3	58.3	54.5
Other	59.7	57.1	54.7

5.5.1 ACTIONS TO IMPROVE HEALTHY EATING

The Association of UK Dieticians (BDA) recommends simple changes to diet and lifestyle which have been found to be highly effective in terms of prevention and treatment of hypertension. One example of how this can be achieved is a reduction in the amount of processed food people eat. Three quarters of the salt we eat is hidden in manufactured foods, ready meals, and takeaways. Action on reducing the consumption of processed food will help reduce the risks associated with hypertension.

For people who are unable to prepare and cook their own meals, being able to understand and use food labelling on ready meals, will inform healthier choices. The BDA has a traffic light colour coded guide to help people understand how much salt is contained in ready meals⁶⁶.




In Medway, preventative strategies are delivered through the public health team via a life course approach. Starting from the early years a **Beside You** breastfeeding support service is available. This supports mothers to breast feed their babies. Adult services help reduce obesity and improve healthy eating, therefore supporting action to manage the dietary risks associated with developing diabetes, hypertension, heart disease, and stroke. The life course approach includes the provision of three different healthy cookery groups.

Table 7: Cookery groups provided by Medway Council's Public Health team

Course Name	Target Age Group
Little Chefs	For families with children aged 2 – 4 years who are accompanied by their parent or care giver.
Tri Cookery	Sessions for children and young people aged 5 - 17 years and their parent/care giver.
Adult Cookery	For adults aged 18 years and over.



Free cookery courses are delivered weekly across Medway. These courses support attendees through increasing their knowledge and skills. They highlight the risks of ultra-processed foods and ways in which people can prepare nutritious food on a budget. They have made a significant difference for those attending the programs who learn about food labelling, portion sizes, balanced diets, energy balance and gain real world practical cooking skills.



CASE STUDY - TRI COOKERY AND ADULT COOKERY

Pre-course attendance information gathered from people before the **Tri Cookery and Adult Cookery** courses ran, found lack of time and knowledge about what makes for a healthy diet were key determinants of unhealthy eating. We also found that clients were unable to read and understand food labels.

Evidence gathered from post-course evaluations show participants adopted and benefitted from the healthy eating measures they learned on the cookery classes. Feedback from service users reinforce the importance of promoting the benefits of healthier eating and food choices to improve wellbeing.

I will buy less pre-made meals as I have seen how easy it is to make them myself.

Focus on healthier meals made from scratch.

There's so much I am doing differently, I think it is my mind set that has changed and having a baby weaning onto food, I am now less scared of cooking so it will hopefully pass on.

Look at the different veg options that are in season.

Try to make meals with more vegetables.

No salt, less sugar.

More mindful of labels.

5.5.2 FOOD SUSTAINABILITY

There have been significant challenges to global food security arising from a number of factors. These include the COVID-19 pandemic and war in Ukraine. These events have had a bearing on the availability of agricultural commodities and increased energy costs worldwide. This has led to increased pressure on families with the rising costs impacting on availability and access to food for many. Within Medway, a range of measures have been taken to support local people. These include the promotion of availability of **Healthy Start Vouchers** and vitamins for children and new mothers, **Free School Meal Vouchers**, during school holidays for those eligible, cookery programmes and the **Holiday Activity and Food Programme**. This programme offers a range of wellbeing activity and a hot nutritious meal during school holidays for children and young people who are eligible. To support a healthy food culture and ethos in Medway's schools, an organisation (**Food for Life**) has been commissioned to deliver a whole school food approach. The aim is to support policy development, improve school food standards, and to contribute to a community-wide whole systems change. These approaches mean that our community is better informed in relation to food matters, local initiatives are sustainable, inequalities are reduced, and health and wellbeing outcomes associated with improved nutrition are achieved.

The **Medway Food Partnership** aims to address sustainability by adopting a collaborative approach across Medway. It brings together a wide range of sectors and organisations to create a sustainable food network. Medway has signed up to the national **Sustainable Food Places Award**. This national programme reinforces local efforts, providing a framework to strengthen the core elements of the **Medway Food Partnership**.

5.6 ALCOHOL AND BLOOD PRESSURE

Alcohol is widely consumed in Great Britain. Alcohol misuse is the biggest risk factor for death, ill-health and disability among 15–49-year-olds in the UK⁷³. It is a common substance of abuse, and can lead to more than 200 disorders, including hypertension. National data suggests 57% of respondents above 16 years of age indicated they had consumed alcohol in the previous week, and 10% had consumed alcohol on at least five days in the previous week. In 2016, an estimated 10.8 million adults in England were drinking at levels which entail risks to their health, with a further 1.6 million experiencing some level of alcohol dependence⁷⁴.

The NHS advises that individuals may need help if they fall into one of the following categories:

- Frequently feel the urge to consume alcohol.
- Are getting into problems due to their drinking.
- Are being warned by other people about their alcohol consumption.
- Perceive that their drinking is causing problems for themselves.

Alcohol can have a sudden and intense impact on blood pressure as well as longer term effects. High blood pressure is the most common alcohol-related health problem. Drinking alcohol to excess, can affect the muscles within blood vessels leading to them narrowing. This in turn requires the heart to work harder, leading to hypertension. The more alcohol is consumed, the higher the risk of developing hypertension⁷⁵.

5.6.1 LOCAL ACTION TO HELP PEOPLE REDUCE ALCOHOL INTAKE:

Medway Council's public health team commission a local treatment and recovery service to support those who regularly drink more than the recommended levels of alcohol. This service works in partnership with a range of partners including social workers, hospital clinicians, mental health professionals and other statutory and voluntary service workers.

One way in which our treatment provider helps to reduce excessive alcohol consumption is through sharing vital messages about the harms of alcohol through delivery of Brief Intervention training to partners. This training equips professionals with the knowledge and skills to **make every contact count** using motivational techniques that encourage people to engage in treatment. This includes discussing alcohol related health risks, completing an **AUDIT-C** questionnaire⁷⁶. This is simple tool used to determine how much alcohol a person is consuming. This type of engagement enables early help to be provided to people who drink alcohol, before they get to a stage where they are classified as dependent or chaotic drinkers, thus reducing potential harms caused by alcohol.

In terms of follow up care and treatment, once an individual has been referred to the service, an allocated recovery worker will complete a comprehensive assessment.

Medway Council's public health team have also commissioned a specific app called **Try Dry**. This enables people to track their own drinking habits with the aim of reducing alcohol intake and making people aware of how much and how often they drink. The app is free to download for all Medway residents and employees. To support individuals, the app includes goals, badges, an interactive calendar, an **AUDIT-C** tool, baseline drinking data, charts, daily nudge notifications, and missions.

As part of the Governments **National Drug Strategy**⁷⁷, local authorities have been granted additional funding to improve their local drug and alcohol treatment services. Medway has utilised this funding to increase capacity, employing more recovery workers to support people with alcohol dependency.

6 Innovations

6.1 APPLYING MORE THAN ONE APPROACH TO HELP DIAGNOSE PEOPLE EARLIER

There is considerable work underway at local, regional, and national level to explore options for early diagnosis and ongoing management of hypertension. Tackling factors that give rise to hypertension and supporting those with the condition is challenging. Of greatest importance is the need to narrow the health gap and improve early diagnosis rates, especially in communities at greater risk. Once people have been diagnosed, there is a need to support them to adhere to their treatment plans and regularly check their blood pressure so that it is managed within a healthy range.

6.2 HYPERTENSION HEROES

Medway's public health team, alongside two other areas in Kent, are running a hypertension diagnosis pilot project called **Hypertension Heroes**. The project is funded using resources specifically allocated for the purpose of early diagnosis. It involves partnership working with local **voluntary, community, and social enterprise** (VCSE) organisations to support and empower communities to better manage hypertension and identify those who are undiagnosed. **EK360**, a VCSE organisation with a wide range of experience and links within communities, designed the **Hypertension Heroes** project. The objectives are to:

Objective 1

Reach people from identified communities, in line with NHCORE20PLUS5

- Raise awareness of the importance of personal management of hypertension.
- Encourage people who have already been issued with blood pressure monitors, to use them and report results to their GPs.
- Encourage and empower people to identify risk factors associated with hypertension and seek diagnosis.

Objective 2

Work with primary care teams to improve diagnosis and treatment

- To support GPs and pharmacies to identify and work with those most at risk of hypertension.
- Increase personalised approaches for patients/service users for the identification of hypertension and monitoring of blood pressure.
- Reduce inequalities between different groups of people for the identification and management of hypertension.

Objective 3

Build a community champion resource

- Recruit, train, and establish a skilled and motivated team of community champions who can help improve hypertension diagnosis rates.
- Where possible, community champions to deliver services in languages that are more responsive to the needs of the population
- Work with community champions to establish links with different community groups and create access points to these groups for other health and wellbeing initiatives.

EK360 recruited several VCSE organisations whose members are representative of community groups affected by health and social inequalities. Some volunteers speak more than one language and are well placed to deliver the service to people whose first language is not English. Volunteers, (known as **Hypertension Heroes**), were trained to engage with people and raise awareness of and support blood pressure management. They were also taught the importance of cardiovascular disease (CVD) prevention, including managing lifestyle factors such as smoking and poor diet.

Once trained, the volunteers reach the right population groups by setting up pop-up blood pressure information and monitoring events in key locations as well as using existing community venues. The project provides scope for events to be held in different languages and at venues and settings that are more accessible to those most at risk of undiagnosed hypertension. The volunteers can provide people with the option to be referred to their GP if their blood pressure is high, together with a further option for a referral to public health's **A Better Medway** lifestyle services.

EK360 also work in partnership with the **Local Pharmaceutical Committee (LPC)**, an organisation that represents NHS contracted community pharmacies in a defined locality. Through the hypertension heroes project, pharmacies signed up to the **Community Pharmacy Hypertension Case-finding Advanced Service**. This enabled the volunteer **Hypertension Heroes** to refer people with high blood pressure to a participating pharmacy, instead of the GP. This meant people with suspected hypertension were able to access diagnostic tests, including a 24-hour ambulatory blood pressure monitoring assessment device to determine whether they had hypertension. Further investigation and follow up was enabled through liaison and referral to the individuals GP.

Recognising that there was likely to be more people undiagnosed and possibly not optimally managed in disadvantaged areas in Medway, this pilot was initiated in two electoral wards with relatively high levels of deprivation. These were Gillingham South and Gillingham North. These wards are aligned to several GP practices. When grouped together they are known collectively as **Primary Care Networks or PCNs**.

The duration of this pilot project is for an initial period of six months. Interim mid-point evaluation has been carried out and early findings suggest the pilot is achieving its objectives with people attending sessions who do not usually engage with screening services. One of the key findings shows that 21% of attendees have been of non-white ethnicity and 63% from postcodes in areas of deprivation.

21% of people attending have been on non-white ethnicity

63% of people attending live in postcodes in areas of deprivation

The pilot is demonstrating success in increasing knowledge and empowering people who belong to high-risk community groups. Those taking advantage of the service have learned more about hypertension management, understanding their blood pressure, and knowing about the different things that can increase their risk of developing the disease. At the end of the intervention 93% reported feeling more confident to monitor their blood pressure at home. A further outcome from this pilot is the success **EK360** have delivered through their work in supporting VCSE organisations to create community champions. These champions will help to support other community engagement work in the future. Positive feedback from the public about the hypertension heroes project includes:

ACCESSIBILITY:

'This is really good, as you can get to people who wouldn't usually bother going to a clinic.'

EMPOWERING:

'I know I need to lose weight, and this is good to take to my doctor next time. It will make me do something... I wouldn't have done this otherwise.'

AWARENESS:

'I really wanted to know how to check my blood pressure and now I feel I can share this with others and help those in my community who do not know about it.'

6.3 CVDPREVENT AUDIT

The **Cardiovascular Disease Prevention Audit**, known as the **CVDPrevent Audit** is a national audit supported by NICE and other organisations it is based on the highest standards of evidence and research⁷⁸. The audit process accesses routinely held data at GP practices relating to the diagnosis and management of six diseases, including hypertension. GP data can be viewed at a very detailed level to identify patients without a diagnosis of hypertension but who have in the past had a high blood pressure reading. The process can also identify patients who have already been diagnosed with hypertension so that their treatment can be reviewed to understand whether they are receiving the right medication at the right doses.

The aim of the **CVDPrevent Audit** is to provide a foundation for professionally led quality improvement in individual GP practices and across PCNs. It supports GPs to help them manage the issues patients face and is focussed on understanding how many patients with one or more of the six specific diseases are potentially undiagnosed, undertreated or over treated. It highlights gaps, enabling the identification of inequalities and helps establish whether these inequalities have been addressed.

The first **CVDPrevent Audit** report was published in December 2021 and provided data gathered before the COVID-19 pandemic. This report established a baseline against which progress could be measured for future audits. The second audit, published in July 2022, enabled a review of the impact of COVID-19 on managing CVD within primary care. The information gathered through this audit supported analyses carried out by **The Office of Health Improvement and Disparities** (OHID) which revealed that there were potentially an additional 5,000 excess deaths from CVD and diabetes that were not COVID-19 related between the period July to October 2021 in England⁷⁹.

This project continues to evolve, and developments include the addition of new measures to understand where further improvements can be made across the wider cardiovascular pathway.

7 Summary of Recommendations

7.1 LOOKING AHEAD

Although much is being done across Kent and Medway to improve hypertension diagnosis rates and adherence to treatment, there remains scope for further work. Finding the one in four adults who have hypertension but are undiagnosed is extremely important. All health and care professionals can contribute to finding people who are undiagnosed. This is particularly important in areas of disadvantage.

It is often said 'prevention is better than the cure'. Tackling the severe consequences of hypertension reaffirms this statement. Everyone has a role to play, whether it be in helping prevent the onset of the disease, finding those who have high blood pressure but don't know it, or treating those who have been diagnosed.

There is a need to support our community to make the small, but important changes to reduce their risk of becoming hypertensive. Reducing consumption of processed food, being more physically active, maintaining weight within healthy ranges and regularly checking blood pressure will help to both prolong life and serve to improve the quality of people lives. Empowering people diagnosed with hypertension to stay engaged and work with their health professional to manage their hypertension effectively will reduce the impact of this condition on the individual, their family and the wider health and care system. The following recommendations aim to help support work to address the challenge posed by hypertension in Medway.

7.2 RECOMMENDATIONS**PREVENTING HYPERTENSION**

Reduce the likelihood of people becoming hypertensive in the first instance. Whilst some people due to inherited or genetic factors, are at an increased risk of high blood pressure, there is much that can be done to reduce the risk in the general public. Not smoking, reducing the amount of salt and fatty food we consume, and moderating alcohol intake will help. Being more physically active, eating more fruits and vegetables and managing stress are other practical steps we can take to reduce our risk.

FINDING THOSE WHO ARE UNDIAGNOSED

For those people aged 40-74 years, attending the routine free NHS Health Check when invited is really important. Outside of any clinical appointments, regularly checking and understanding what your own blood pressure is and 'knowing your numbers' is essential for everyone. Blood pressure devices are now relatively inexpensive and home monitoring can help to identify issues early so action can be taken.

TREATMENT

Everyone must act in tandem to tackle the challenges posed by high blood pressure. Members of the public must do their bit to reduce the risks. People with high blood pressure who have been diagnosed, need to work with their health and care professionals to monitor and keep the condition under control. Health and care professionals must provide high quality and timely hypertension treatment services, in line with best practice guidance.

REDUCING INEQUALITIES

The Health and Care Partnership should continue to prioritise reducing health inequalities and through its work to tackle the wider determinants of health, ensure hypertension reduction is a priority area within the ICB.

8 Abbreviations used in this report

ABPM	Ambulatory Blood Pressure Monitoring - a device worn by a patient that enables a healthcare professional to assess blood pressure over a 24-hour period, during routine activities and periods of sleep.
AUDIT-C	Alcohol Use Disorders Identification Test – ten questions approved by the World Health Organisation to screen people for hazardous and harmful alcohol use.
BDA	The Association of UK Dietitians – a professional body representing the professional, educational, public and workplace interests of Dietitians.
CVD	Cardiovascular disease – a general term for a group of diseases affecting the heart or blood vessels.
EK360	An organisation that forms part of the voluntary and charitable sector in East Kent. The organisation has expertise in working with people who may not normally engage with public services.
EKHUFT	East Kent Hospitals University NHS Foundation Trust – a group of hospitals serving the population of Kent (but not the population of Medway). Medway’s population is served by Medway Maritime Hospital, also known as Medway NHS Foundation Trust.
HCP	Health & Care Partnership – brings together all provider health organisations in a given area to work as one. They can focus on areas of greatest need, helping to reduce inequalities and improve life expectancy by designing and delivering services that meet the needs of their local population.
ICB	Integrated Care Board - a statutory NHS organisation responsible for developing a plan for meeting the health needs of the population, managing the NHS budget, and arranging for the provision of health services in a geographical area.
LPC	Local Pharmaceutical Committee – a local organisation that represents community pharmacists and pharmacy owners. It works closely with NHS, local authority and other health and care services to plan and deliver healthcare services.
NHS Core 20 PLUS5	A nationally led approach to reducing inequalities in defined population groups, with a specific focus on 5 clinical areas requiring accelerated improvement.

NICE	National Institute of Health and Care Excellent - Provides national guidance and advice to improve health and social care through evidence-based recommendations developed by independent committees, including professionals and lay members, and consulted on by stakeholders.
PCN	Primary Care Network – groups of GP practices who work together with community health services, mental health service providers, social care, pharmacies, voluntary and charitable sector organisations and hospitals. Their combined expertise and resources are coordinated to meet the needs of local people.
OHID	Office for Health Improvement and Disparities – a central government department that focuses on improving the nation’s health so that everyone can expect to live healthier and longer lives. It seeks to break the link between background and prospects for a health life.
QOF	Quality and Outcomes Framework – a contractual framework for GP practices to improve quality of care by rewarding practices with financial incentives for specific elements of care.
VCSE	Voluntary, community and social enterprise – a non-government organisation that serves communities. It can be a charity or other service provider that reinvests any surplus money to further social, environmental, or cultural objectives.
WHO	World Health Organisation – an international body and an agent of the United Nations. It is responsible for international public health.

9 Acknowledgements

My personal thanks to all colleagues who have contributed to the compilation of this Annual Public Health Report. These include:

Katherine Bell, Julia Thomas, Oluseyi Obadare, Tracey Kilbane, Dr Eluned Broom, Hanifa Ditta, Scott Elliott.

Dr Gary Tse, Reader in Public Health, Kent & Medway Medical School.

Dr Michael Jackson, Specialist Cardiology Pharmacist, East Kent Hospitals University NHS Foundation Trust.

Dr Subhro Mukherjee, General Practitioner, Aspire Medical Health, Medway.

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