



HEART UK
THE CHOLESTEROL CHARITY

THE FUTURE OF CVD CARE IN AN EVOLVING SYSTEM

September 2021

Foreword

At HEART UK, our vision is to prevent early disease and deaths from cholesterol and other blood fat (lipid) conditions in the UK – a major risk factor for heart attacks and strokes. We are working hard to ensure that people with high cholesterol are detected as early as possible and receive the support they need to prevent premature death and improve health and wellbeing.

As the UK recovers from the COVID-19 pandemic, which placed an unprecedented level of strain on the NHS, we wish to work closely with the health service to ensure that our advocacy will make a huge difference to thousands more people at risk of developing serious, life threatening cardiovascular diseases (CVD) in the future.

We want to increase the number of people identified with inherited lipid conditions, and for people to know and understand their cholesterol and other lipid levels and take appropriate action. To do this, we will continue to: develop new information for individuals about cholesterol and CVD; further expand our healthcare services and provide guidance on the issue of high cholesterol; and ensure that this leading risk factor remains a top health priority for the Government and NHS bodies.

It is to these ends that HEART UK has developed this report. Our ambition is to articulate why we need to ensure that cholesterol and Familial Hypercholesterolaemia (FH) remain a top health priority for prevention with adequate funding, for the benefit of patients now and in the future.



A handwritten signature in black ink, appearing to read 'Jules Payne'.

Jules Payne
Chief Executive
HEART UK
The Cholesterol
Charity

HEART UK's report *The future of CVD care in an evolving system* reflects on the impact of the COVID-19 pandemic on CVD care during the last 12 months.

It highlights how CVD care has broadly been deprioritised throughout this time, but also some of the learnings that have emerged in response to the pandemic, and the opportunities this has presented for the long term.

Recognising the impact of the pandemic on CVD care and the opportunities to accelerate innovation and best practice is vital if we are to succeed in meeting the ambition of preventing 150,000 strokes, heart attacks and dementia cases by 2029.¹

WHAT IS CVD?

CVD is a general term that describes a family of diseases with a common set of risk factors that result from atherosclerosis (furring or stiffening of the artery walls). This includes:⁴

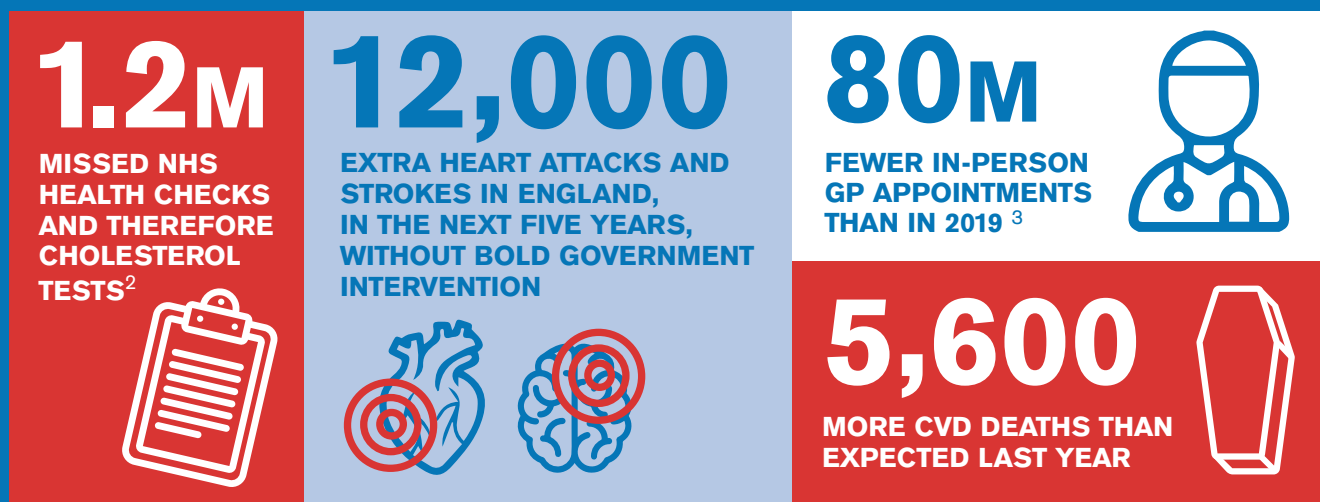
- Coronary heart disease
- Stroke
- Peripheral arterial disease

WHAT IS HIGH CHOLESTEROL?

Cholesterol is a type of blood fat (lipid). We all need some cholesterol in our blood to stay healthy, but too much cholesterol in the blood can create blockages, leading to heart and circulatory diseases.

High cholesterol can result from an unhealthy lifestyle, or inherited conditions, such as Familial Hypercholesterolaemia.

SNAPSHOT: THE IMPACT OF THE COVID-19 PANDEMIC ON CVD CARE



1. NHS. The NHS Long Term Plan. 2019. <https://www.longtermplan.nhs.uk/>

2. NHS Health Check. People receiving an NHS Health Check per year 2019/20. 2021. https://fingertips.phe.org.uk/profile/nhs-health-check-detailed/data#page/3/gjd/1938132726/pat/6/par/E12000004/ati/202/are/E06000015/iid/91734/age/219/sex/4/cid/4/tbm/1/page-options/cin-ci-4_ovw-do-0_car-do-0

3. IPPR. Without Skipping a Beat. 2021. <https://www.ippr.org/files/2021-03/without-skipping-a-beat.pdf>

4. HEART UK. State of the Nation: Cardiovascular Disease. 2018. <https://www.heartuk.org.uk/downloads/heart-uk-state-of-the-nation-report-2018.pdf>

CVD in the UK

CVD IS THE CAUSE OF

1 IN 4

DEATHS IN ENGLAND AND IS THE LARGEST CAUSE OF PREMATURE MORTALITY IN DEPRIVED AREAS.⁵



TODAY, THERE ARE ROUGHLY

7.4m

PEOPLE LIVING WITH CVD IN THE UK – AN AGEING AND GROWING POPULATION AND IMPROVED CVD SURVIVAL RATES COULD SEE THESE NUMBERS RISE.⁶

THE NHS LONG TERM PLAN RECOGNISED THE IMPORTANCE OF ADDRESSING THE IMPACT THAT THIS SERIOUS DISEASE HAS ON PATIENTS. IT IS THE SINGLE BIGGEST AREA WHERE THE NHS CAN SAVE LIVES OVER THE NEXT 10 YEARS.¹

MORE THAN TWICE AS MANY PEOPLE ARE LIVING WITH CVD THAN WITH CANCER AND ALZHEIMER'S COMBINED,⁷ AND AROUND HALF OF ADULTS IN THE UK ARE LIVING WITH RAISED CHOLESTEROL (ABOVE 5 MMOL/L), WHICH IS A SIGNIFICANT CVD RISK FACTOR.⁸



5. Public Health England. Health Matters: Preventing cardiovascular disease. 2019. <https://publichealthmatters.blog.gov.uk/2019/02/14/health-matters-preventing-cardiovascular-disease/>
6. HEART UK. CARDIOVASCULAR DISEASE CARE BEST PRACTICE. 2020. <https://www.heartuk.org.uk/downloads/health-professionals/publications/heart-uk-cvd-best-practice-report.pdf>
7. British Heart Foundation. UK Factsheet. 2021. <https://www.bhf.org.uk/what-we-do/our-research/heart-statistics>
8. HEART UK. Cholesterol. N.d. <https://www.heartuk.org.uk/about-us/press-office>

NHS Long Term Plan

The NHS Long Term Plan (LTP) was published in January 2019 and launched by former Prime Minister Theresa May and Sir Simon Stevens, Chief Executive of NHS England (2014-2021). The Plan places a strong focus on prevention and integrated care, with big ambitions for CVD and improving infrastructure to support CVD care – placing an emphasis on digital solutions within the health service.

HEART UK has tracked progress against the CVD commitments laid out in the NHS Long Term Plan. The traffic light analysis assigns a red, amber or green rating to each of the commitments to determine progress since 2019.

COMMITMENT	PROGRESS MADE	PROGRESS LEFT
<p>A commitment to expanding access to genetic testing for FH. NHS England aims for 25% of people with FH to be identified through the NHS genomics programme over the next 5 years.</p>	<p>In August 2021, the NHS launched a real-world evaluation of child-parent cascade screening in seven Academic Health Science Network (AHSN) areas in England. £500,000 has been made available by NHS England and Improvement to enable this pilot which will test over 30,000 children for cholesterol at the point of their 1-year vaccination over the next 24 months.⁹</p> <p>NHS England has also committed an additional £335,000 for the NHS to introduce a national lifelong FH registry.</p>	<p>It will be important to ensure this pilot is taken up quickly and effectively within these AHSNs, to ensure testing targets are met.</p> <p>Additionally, though a procurement process is already underway for the national lifelong registry, it is important to bear in mind that there is already a registry in place across half of England, which also enables efficient family cascade testing for FH. We must ensure the benefits of this system are not lost if it is not selected as part of the procurement exercise.</p>
<p>A promise that NHS England, working with local authorities and Public Health England (PHE), will improve the effectiveness of the NHS Health Check.</p>	<p>Stakeholders were invited to review NHS Health Check in 2020 and suggest improvements; we are awaiting the publication of the report on this, which was due to land at the Department of Health and Social Care (DHSC) in late 2020.</p>	<p>It is important we continue to take steps to safeguard NHS Health Checks, and ensure appropriate funding is introduced to enable delivery and improve public participation. The Government's Integration and Innovation White Paper and Health and Care Bill are important levers for ensuring that, with a move to integrated care systems (ICSs), NHS Health Checks will still be prioritised nation-wide and won't slip through the gap of place-based commissioning. Uptake of the Check will only increase if local authorities are given sufficient financial backing to deliver the incentive.</p>

9. Department of Health and Social Care. <https://questions-statements.parliament.uk/written-questions/detail/2021-03-18/171567/>

COMMITMENT

The creation of a national CVD audit for primary care.

PROGRESS MADE

NHS England created CVDPrevent and the first data extraction is complete. We are currently awaiting audit reporting on 2020 data (which has been delayed and is now expected in early 2022). Data from the audit will assist in identifying FH through primary care and will be a useful tool to understand the size of the backlog caused by the COVID-19 pandemic.

PROGRESS LEFT

As we await results from the first audit, we hope to see detailed and specific targets for CVD prevention in local areas set out in ICS frameworks. Accountability frameworks for the new ICS Health and Care Partnership boards should be clearly set out to ensure those in leadership positions are encouraged to enact real change. More recently, it was announced that cholesterol may be reintroduced as a Quality Outcomes Framework (QOF) indicator in 2023 for the CVDPrevent audit programme. This would be a welcome step.

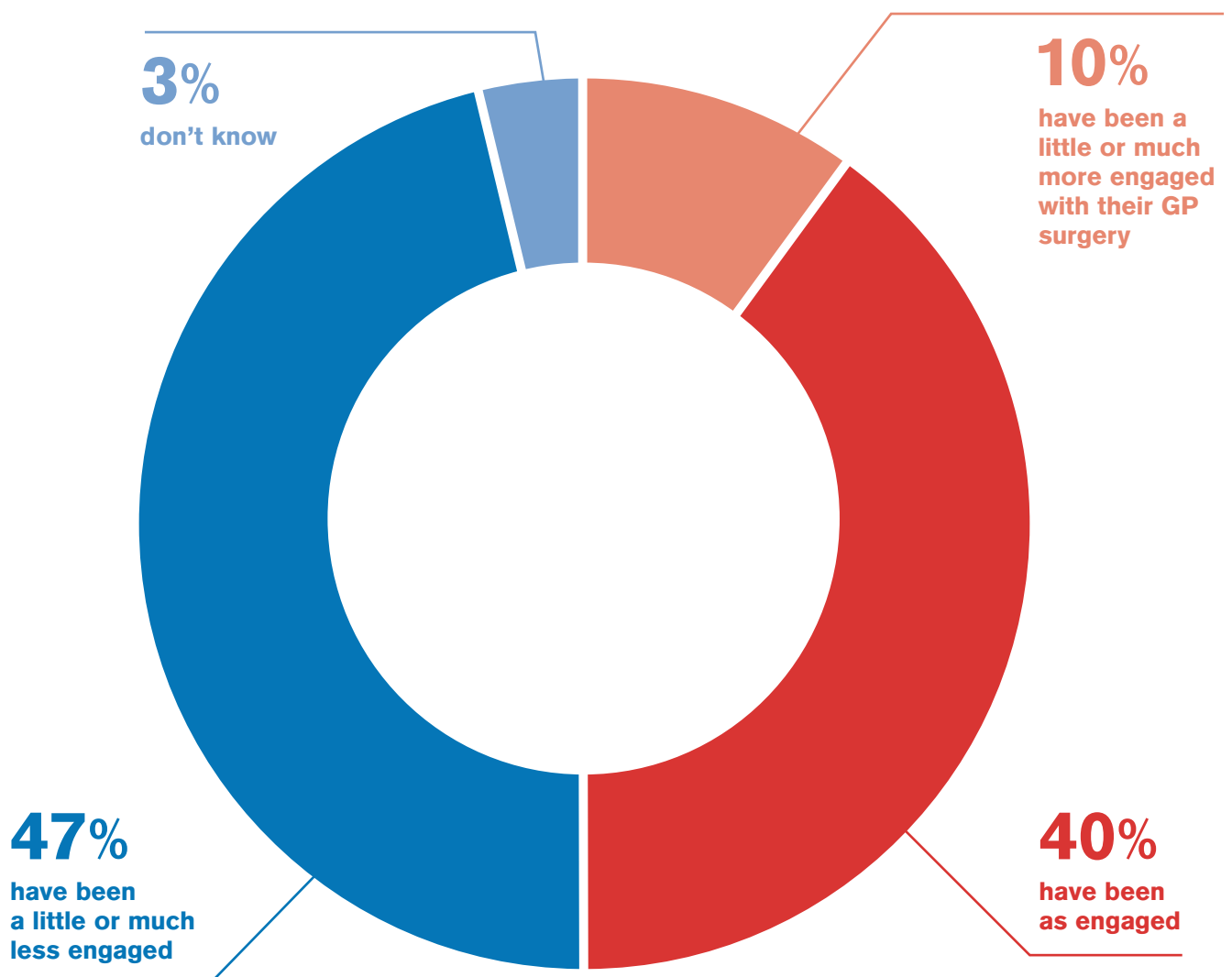


The hidden impact of COVID-19

The COVID-19 pandemic has caused serious disruption across CVD pathways and fragmented prevention, diagnosis and treatment of the disease. HEART UK conducted a novel survey with YouGov of over 2,000 adults in the UK for the purpose of this report, to understand how diagnosis and treatment of CVD, with specific reference to high cholesterol, has been disrupted by the pandemic.¹⁰

Our survey found that, while **40%** of respondents have remained as engaged with their GP surgery as before the pandemic, **47%** noted they have either been a little or much less engaged. This remained relatively constant across age groups and geographies. Interestingly, fewer women (36%) reported they have been as engaged with their GP than men (43%). **51%** of women said they have been either a little or much less engaged with their GP, compared to **42%** of men.

These statistics are concerning as less engagement with GPs results in fewer referrals to CVD specialist services. This may lead to more patients presenting in acute care at a later stage, and more pressure on the NHS.



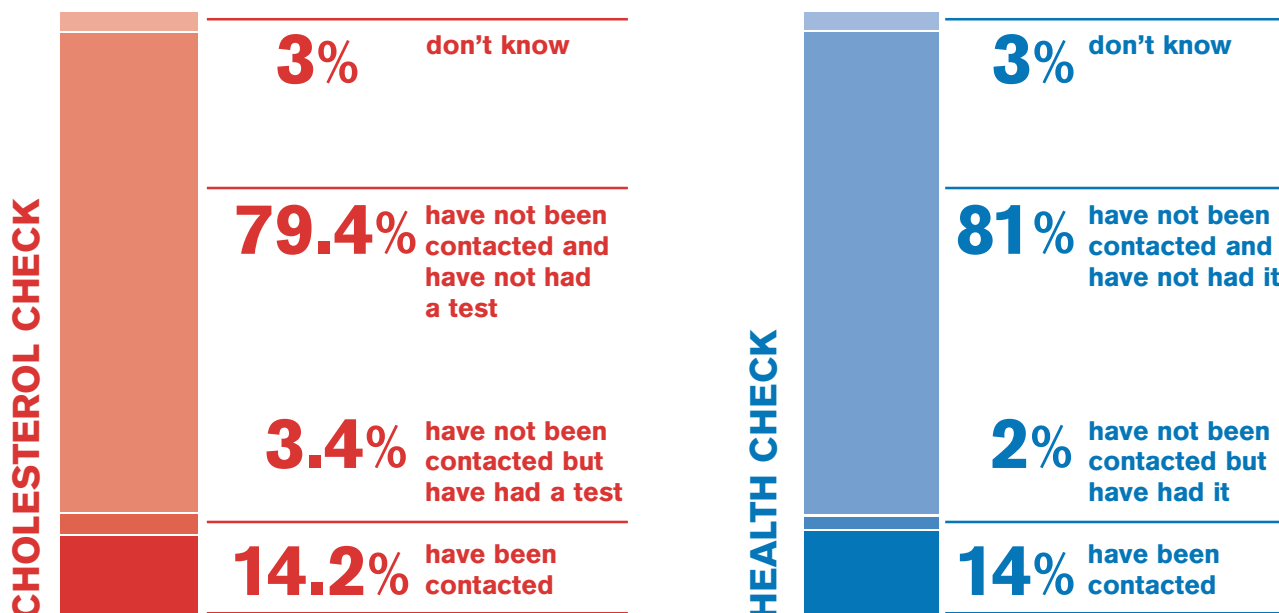
An area of concern that arose from our survey was the data around people taking statins, a group of medicines that can help lower the level of low density lipoprotein (LDL) cholesterol in the blood.¹¹ Of the **16%** of people surveyed taking statins, more than half were a little or much less engaged with their GP than before the pandemic, compared to **45%** of those not taking statins. Additionally, only **39%** of those taking statins have had a cholesterol check since the start of the pandemic. This is particularly troubling due to the fact that those taking statins should be receiving a cholesterol check annually, meaning that there are far fewer opportunities for GPs to monitor patients' cholesterol levels and adapt their treatment accordingly. Even if patients have been prescribed statins, some people will require additional treatment to ensure that cholesterol is appropriately managed.

Perhaps more concerning is the general data we found around NHS cholesterol and health checks. An NHS Health Check should be offered to anyone in the UK between the ages of 40 and 74, who does not already have a pre-existing health condition.¹² Even if patients have been prescribed statins, some people will require additional treatment to ensure that cholesterol is appropriately managed.

Our survey found that **81%** of those potentially eligible for a health check, including a cholesterol test, have neither been contacted nor received one during the pandemic. This number is higher amongst those who are in the younger category of those potentially eligible, with **85%** of 45-54 year olds not being contacted, versus **79%** of 60-70 year olds.

Again, as with the data on GP visits, the trend is that fewer women were contacted than men, with **85%** of women not being contacted and not having a health or cholesterol check, versus **75%** of men.

There is also a large regional variation, with **71%** of respondents from the North East of England not being contacted and not having the check, versus **87%** in the South East.



10. HEART UK/YouGov survey. All figures, unless otherwise stated, are from YouGov Plc. Total sample size was 2086 adults. Fieldwork was undertaken between 28th May - 1st June 2021. The survey was carried out online. The figures have been weighted and are representative of all GB adults (aged 18+).

11. NHS. Statins Overview. Available at: <https://www.nhs.uk/conditions/statins/> Last accessed: June 2021.

12. NHS Health Check. Available at: <https://www.nhs.uk/conditions/nhs-health-check/> Last accessed: June 2021.

13. IPPR. Without Skipping a Beat. 2021. <https://www.ippr.org/files/2021-03/without-skipping-a-beat.pdf>

There are a number of potential reasons for gendered and regional variation in those who are contacted for cholesterol and health checks, including varying incidence of chronic conditions across the UK. In terms of disease burden, CVD is the largest single cause of long-term ill health and disability, and accounts for more than half of the mortality gap between rich and poor. People in the most deprived areas of England are almost 4 times as likely to die prematurely from CVD compared with those in the least deprived areas. Similarly, those in the most deprived communities are **30%** more likely to have high blood pressure, the single biggest risk factor for heart attack and stroke. Health inequalities exacerbated by the pandemic will only worsen outcomes.

It is important to note that early diagnosis of raised cholesterol is crucial to allow for timely treatment in both those newly diagnosed and existing secondary prevention patients. Thus, missed early prevention and diagnosis leads to missed treatment opportunities, which can have devastating effects on survival rates.¹³ The state of play post-pandemic will result in setbacks to the LTP's commitments to improve CVD diagnosis and outcomes.

PEOPLE IN THE MOST DEPRIVED AREAS OF ENGLAND ARE ALMOST

4x

AS LIKELY TO DIE PREMATURELY FROM CVD, COMPARED WITH THOSE IN THE LEAST DEPRIVED AREAS.



THOSE IN THE MOST DEPRIVED COMMUNITIES ARE

30%

MORE LIKELY TO HAVE HIGH BLOOD PRESSURE, SINGLE BIGGEST RISK FACTOR FOR HEART ATTACK AND STROKE.



Despite the prevalence and severity of CVD, it has received a worrying lack of attention during the pandemic – with a risk that this deprioritisation of CVD care could lead to an estimated 12,000 extra cases of heart attack and stroke over the next five years.³

The key areas of CVD care that have been affected by the pandemic are:

1. STEEP DECLINE IN DIAGNOSIS

- The pandemic has directly resulted in 1.2 million missed NHS Health Checks.² These checks are crucial in helping to prevent heart and circulatory diseases, so every check that doesn't take place represents another potentially missed opportunity to prevent a major CVD event such as a stroke or heart attack. NHS England's decision to offer 'Health MOTs' at vaccination centres is a positive step in overcoming the backlog of health checks.¹⁴
- CVD prevention depends on primary care, but between March 2020 – December 2020 there were almost 80 million fewer in-person GP appointments than in 2019.³ This means information usually gained through face-to-face examination is lost, making it harder to identify CVD risk factors and optimally treat them.
- Referrals to cardiovascular specialists were a quarter below 2019 levels in December 2020 in England.³

2. DISRUPTION TO TREATMENT

- COVID-19 has resulted in cancelled appointments and fears of using NHS services, with 71% of cardiologists surveyed indicating that they felt patients were not presenting for emergency medical support during COVID-19 because of fear of contracting the disease and there are a significant number of patients who have suffered from a stroke or myocardial infarction (MI) who are not receiving appropriate treatment.¹⁵
- 470,000 fewer new prescriptions of preventative cardiovascular drugs such as statins, antihypertensives, and anticoagulants were issued last year.³
- In 2020, there were over 5,600 more CVD deaths than expected, and only half were related to COVID-19, suggesting the rest could have been caused by disruptions to normal healthcare services.³

3. PEOPLE WHO HAVE CVD ARE MORE LIKELY TO SUFFER WORSE OUTCOMES IF THEY CONTRACT COVID-19

- There is a greater likelihood that individuals over the age of 65 with coronary heart disease or hypertension may develop severe illness if they contract COVID-19, as well as experience more severe symptoms that will require critical care.¹⁶
- Meanwhile, a study in the British Medical Journal found that patients with more than one risk factor for CVD had a 52% higher 3-week mortality risk, independent of age and sex.¹⁷
- Data shows that the mortality rate from COVID-19 for people already diagnosed with CVD is 10.5%.¹⁸

Heart and circulatory disease patients have a high risk of contracting and experiencing severe consequences of the disease. Delays caused by the legislation introduced to reduce the spread of COVID-19 have forced doctors to try to strike a balance between mitigating risk and continuing to ensure access to treatment and care – with many working to find innovative solutions to this challenging problem over the past year.

14. NHS England. Thousands of lives to be saved by health MOTs at NHS vaccination services. 2021. <https://www.england.nhs.uk/2021/06/thousands-of-lives-to-be-saved-by-health-mots-at-nhs-vaccination-services/>

15. British Heart Foundation. Lives at risk due to 50% drop in heart attack A&E attendances. 2020. <https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2020/april/drop-in-heart-attack-patients-amidst-coronavirus-break>

16. Science Daily. COVID-19 linked to cardiac injury, worse outcomes for patients with heart conditions. 2020. <https://www.sciencedaily.com/releases/2020/03/200327113743.htm>

17. BMJ. Cardiovascular risk factors and COVID-19 outcomes in hospitalised patients: a prospective cohort study. 2020. <https://bmjopen.bmj.com/content/11/2/e045482.citation-tools>

18. Dan S, Pant M, Upadhyay SK. The Case Fatality Rate in COVID-19 Patients With Cardiovascular Disease: Global Health Challenge and Paradigm in the Current Pandemic. 2020. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7490208/>

Learnings from the pandemic

The NHS has learned to coexist with the pandemic and provide COVID care and non-COVID care. Rebuilding and reimagining the NHS will continue to be a priority for the months ahead. In many ways, the pandemic has accelerated willingness, capability and capacity for change.

INNOVATION

The pandemic has seen huge innovation in the NHS, and the need to sustain and retain this will be important. The pandemic has enabled local health systems and hospitals to accelerate the implementation of innovation they have been working on for years, specifically as set out in the Long Term Plan in 2019. The main change experienced by all trusts was an advancement in digital use. Prior to COVID-19, many had plans to expand their use of digital care and telemedicine, including virtual consultations, but the pandemic accelerated this. There has also been a wide range of innovation in how trusts operate with partners and in the flexibility of the workforce. For CVD, virtual care has been especially demonstrated by the implementation of at-home blood pressure monitoring. Since October 2020, over 22,000 blood pressure monitors have been distributed around England so that patients can record their blood pressure and send their readings to their GP to review, by telephone, email or via a remote monitoring platform. In addition, those who already own a blood pressure monitor can discuss with their GP how to monitor their blood pressure at home. Whilst the technology for at-home cholesterol testing is currently not optimal, remote-patient monitoring and digital tools, including the Heart Age Test can be implemented to support those living with known high-cholesterol levels, those on statins and those deemed at-risk of developing CVD.

INTEGRATED CARE

Working in collaboration across the health system has been vital in supporting the NHS to deal with the pandemic and will continue to be critical moving forward. The way that providers have worked through COVID-19 has been a catalyst to more system working and has accelerated planning for ICS. The change put in place through the Coronavirus Act 2020 and the ongoing Health and Care Bill 2021-22 will enable greater flexibility in the way health and care services work together and the removal of funding and organisational barriers will encourage joint working.

PREVENTION

Finally, the pandemic has emphasised the importance of primary prevention especially for vulnerable and at-risk populations such as those with FH. Going forward, investment for primary prevention must be prioritised, and within that, an increase in the proportion of investment going towards preventing ill health in those who are at increased risk of morbidity from CVD due to the exacerbation of other underlying non-communicable diseases.

Recommendations

Ensure NHS Health Checks are offered to all those eligible to support primary prevention.

Accelerate the publication of the CVDPrevent data extraction in order to make meaningful recommendations and implement change. Share knowledge gained from the new CVDPrevent audit of primary care to support efficient care delivery to those already diagnosed.

Continue to raise public awareness of CVD risk factors, especially following the replacement of Public Health England, to address the backlog of eligible people who have missed Health Checks or who have not engaged with the NHS as a result of the pandemic.

Recognise best practice in accelerating virtual and digital care and work to scale these examples in line with ambitions set out by the NHS Long Term Plan and NHSX's Digital Strategy.

Utilise momentum of more collaborative working to ensure swift implementation of Integrated Care Systems and ensure plans prioritise the CVD backlogs for existing and new patients.

Recognise the broader societal and economic benefits of prevention and increase investment in primary prevention of CVD as a way to mitigate complications to vulnerable and at-risk populations.

Manage CVD throughout the treatment pathway as a family of diseases in order to ensure co-ordinated and integrated patient care and link closely with pathways for co-morbidities such as diabetes.

Incentivise providers of NHS Health Checks to improve the uptake amongst the eligible population with clear uptake targets.

Encourage cross-sector collaboration between the NHS and industry in order to develop effective CVD prevention mechanisms.

Implement new and updated national pathways locally through AHSNs to ensure that patients are following best practice algorithms uniformly.

Launch a public consultation into the draft Primary Care Network (PCN) service specification without delay.

Ensure equity of access to FH services across the country.



HEART UK

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