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COMMITTING TO CHOLESTEROL

Preventing cardiovascular disease to secure the future of the NHS







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About this report

This report reflects a consensus-based, long-term vision for improving cardiovascular outcomes in England.

A roundtable was hosted on 28 August 2024 to support the development of this document. This event provided an opportunity for multidisciplinary experts and health system leaders to co-create recommendations for securing progress in cholesterol management and the secondary prevention of cardiovascular disease at the national, regional and local levels. All contributors participated on a pro bono basis.

The roundtable was informed by a comprehensive literature review of academic publications, guidance, policy and reports on progress in cholesterol management in England over the past five years. For discussion during the roundtable event, this review identified core gaps between policy ambition, national direction and the abilities of the health system to effect change. Participants received a summary of these findings prior to the meeting, which adopted an interactive workshop approach to facilitate an in-depth assessment of key barriers and opportunities, and an examination of drivers behind the current context and accountability for securing future progress, particularly for high-risk populations. The Darzi review was published in the weeks following the roundtable event and has been cited in this report due to its significance to the topic.

This report is an initiative of Amgen Limited. Research, stakeholder consultation and drafting were led by Isabel Ritchie and Ed Harding of The Health Policy Partnership.

OUR VISION FOR CHANGE

As a multidisciplinary group of cardiovascular experts from across England, we have examined the state of our nation's care provision, with particular focus on cholesterol. Our roundtable meeting, in accordance with the Darzi review, highlighted that the NHS needs a bold new vision for the future of cardiovascular care.

Over the following two pages, we summarise our joint recommendations to the government and NHS England leadership for improving cholesterol management and the secondary prevention of cardiovascular disease in England.

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To the Minister, Chief Executive of NHS England and Integrated Care **Board leadership:**

The next five years provide a unique opportunity to address the economic and societal pressures of chronic illness and population ageing in England.

Our health system is increasingly overwhelmed by largely preventable non-communicable diseases and, despite incredible efforts from committed NHS staff, we have failed to drive major reform in how we prevent and manage these conditions. As evidenced by the September 2024 Office for Budget Responsibility report,¹ it is also clear that if the government is to meet its long-term targets for economic growth and sustainable national finances, it must secure significant improvements in the nation's health, including the reduction of avoidable deaths and ill health in later life. It is vital to take a longterm perspective.

To improve health equity across our communities, leaders must prioritise cardiovascular health.

Cardiovascular disease (CVD) is a leading cause of premature disability and death - and it is both a symptom and a cause of the deep health inequalities we see across our society.² Yet – despite the tireless efforts of many healthcare professionals, healthcare organisations and patient groups – political leadership in cardiovascular health has been mired in a culture of inertia. Too often, policy and planning neglect it or demote its importance. For example, while almost all integrated care boards (ICBs) prioritise cancer in their Joint Forward Plan, around a third still do not do so for CVD.³

Why do we tolerate the fact that half of adults are living with high cholesterol?

The high prevalence of risk factors such as blood pressure, cholesterol and atrial fibrillation have become normalised in our society, but all are silent killers that afflict the poorest and most deprived communities. In the last decade, we have lost a huge opportunity for cholesterol – one of the leading risk factors for CVD. Prescription of medication may be high, but this disguises the unfortunate reality that over half of adults are still living with high cholesterol. We are not doing enough to proactively detect this risk factor as part of a holistic approach to preventing CVD. And when we do, it is often too late, with insufficient follow-up and treatment adaptation to effectively reduce cholesterol and lower the risk of heart attacks and strokes.⁴

We need a more ambitious, cohesive vision for combating cardiovascular events, and greater freedoms for ICBs to invest for the medium and long term.

We know that local NHS services can successfully innovate to overcome pressures - for example, via new roles for community nurses and pharmacists, streamlining referrals and redesigning care pathways for people with multiple conditions. The issue is scale and consistency. The government and NHS England cannot sit back and abdicate strategic leadership over one of the greatest killers in our society - they must guide the system by setting clear targets, while allowing ICBs the freedom to invest in and deliver effective approaches that are valued by, and work within, local communities.

To accept current failures is to lose all confidence in a fairer society and in the NHS's founding mission to improve health for all.

THE TIME TO ACT ON CHOLESTEROL IS NOW.



RECOMMENDATIONS The following actions are required to deliver effective cardiovascular

prevention that is fit for the future:

At the NATIONAL LEVEL

- · Set more ambitious national goals for cholesterol management to target, especially for high-risk populations, and ensure these are reflected consistently in guidance and supporting frameworks, including the Quality and Outcomes Framework Priorities and Operational Planning Guidance.
- Allow ICBs to present business cases on two- to three-year funding timescales to invest in ambitious new approaches in cardiovascular risk management, including cholesterol.
- Establish a lipid advisory group within a national panel for CVD prevention, responsible for scrutinising divergent national messaging, ambitions, policy, guidelines and incentives, to ensure that cholesterol becomes consistently prioritised as a risk factor across all levels of government and NHS England.
- Increase the availability and consistent audit of 'real-time' CVD data in all localities, particularly on high-risk patients, to facilitate strategic planning for cholesterol management (e.g. CVDPREVENT and CVDACTION).
- Launch an Office for Health Improvement and Disparities task force on inequalities in secondary CVD prevention, with cholesterol management to target as a core focus.
- Run national awareness campaigns on cardiovascular risk and the importance of cholesterol management (e.g. through the NHS app and inspired by the successful blood pressure initiative, 'Know Your Numbers').

At the REGIONAL LEVEL

- Ringfence ICB funding for long-term CVD prevention and clinical leadership in cholesterol management.
- For every ICB Joint Forward Plan, conduct a health needs analysis on cholesterol management, creating specific goals and key performance indicators (KPIs) on secondary CVD prevention, including cholesterol.
- Examine audit data to identify unwarranted variation in cholesterol management across each ICB, and inform innovative commissioning to reduce health inequalities.
- Fund and train CVD prevention leads in every ICB to coordinate a range of local services and stakeholders to a goal-driven strategy in cholesterol and cardiovascular risk reduction.

At the LOCAL LEVEL

- Integrate CVD prevention into management for a range of long-term conditions (e.g. diabetes, cancer), making 'every contact count' as an opportunity to optimise cholesterol.
- Conduct quarterly reviews of practice-level cholesterol data (e.g. CVDACTION) to identify high-risk groups, prioritise outreach and care delivery, and monitor progress.
- Develop better community-based detection for cholesterol among high-risk groups, including point-of-care testing via new roles (e.g. pharmacists, nurses) and settings (e.g. community venues, workplaces). This should extend to familial hypercholesterolaemia and high Lp(a).
- Upskill healthcare professionals in community settings to deliver ambitious, progressive management to target, supported by specialist clinical advice and guidance, and new pathways between secondary and primary care – in particular post-discharge from cardiovascular events.





WHY IS CHOLESTEROL **MANAGEMENT CENTRAL** TO IMPROVING HEALTH **OUTCOMES IN ENGLAND?**

Cardiovascular disease (CVD) significantly affects population health and economic sustainability.

It is the second leading cause of death in England,⁵ and a major contributor to morbidity and disability.² Twice as many people are living with CVD in the UK as Alzheimer's and cancer combined,⁶ and the cost of CVD is predicted to total £54 billion in England and Wales between 2020 and 2029.7 Reducing CVD incidence through addressing high cholesterol could increase annual economic productivity by £2.2 billion over the next five years.8

Addressing cholesterol is essential to reducing the acute pressures that CVD places on the NHS.

High cholesterol is a major risk factor for CVD, but medication and lifestyle interventions to lower cholesterol to target levels can significantly improve cardiovascular outcomes.⁴ For example, a 1 mmol/L reduction in low-density lipoprotein (LDL) cholesterol could reduce the risk of a person experiencing a stroke or heart attack by more than 20%.⁹ Cholesterol management is particularly important for people at high risk of cardiovascular events (Box 1) and forms an indispensable element of improving population health in England.

Box 1. Who are 'high-risk' groups?

- People with CVD whose cholesterol levels are not being effectively lowered to target levels
- People who have recently been discharged from secondary care following a cardiac event (e.g. a heart attack or stroke)¹⁰
- People living with a comorbidity;¹¹ this is particularly concerning given that four in five people with CVD have at least one other health condition⁶
- People with inherited risk factors such as familial hypercholesterolaemia, a condition where the liver cannot sufficiently remove cholesterol,¹² or high Lp(a), a lipoprotein that carries cholesterol in the blood.¹³

Progress in lowering cholesterol to target remains unacceptable.

Over half of adults in England have high cholesterol.¹⁴ Despite marginal progress, the cholesterol levels of more than 60% of people living with CVD remain above appropriate thresholds.¹⁵ This leaves many at elevated risk of a cardiovascular event. While the pandemic has been a major disruptor to progress - resulting in reduced prescription of cardiovascular therapy 16 - this setback must not detract from the inadequate longer-term trajectory of cholesterol management in England.

Cholesterol is playing a major role in exacerbating health inequalities.

People living in deprived areas are less likely to receive cholesterol treatment to target¹⁵ and are nearly four times more likely to die from CVD than those in the least deprived areas.¹⁷ Women with CVD are prescribed lipid-lowering therapies less frequently than men¹⁸ and are less likely to have their cholesterol lowered to target.¹⁹ Addressing this unwarranted variation in cholesterol management must become central to the political agenda if the government is to deliver on its goals for cardiovascular health.

Ambitious, system-wide action is needed to improve cholesterol management as part of a holistic approach to CVD prevention.

This report outlines key system barriers and opportunities for achieving progress in England across the national, regional and local levels (Box 2).



AT THE NATIONAL LEVEL,



what are the barriers to and opportunities for improving cholesterol management?

Acting on cholesterol is fundamental if the government is to revitalise the NHS.

The new government was elected on a pledge to reduce deaths from heart attack and stroke by 25% in the next decade, and has a unique window of opportunity to deliver on this.²⁰ Every year, 200,000 people in England experience a heart attack or stroke.⁶ UCLPartners' Size of the Prize modelling reveals that, over the next three years, over 2,000 cardiovascular events could be avoided if the number of CVD patients who are treated with cholesterollowering therapy were to increase by just 1%, and over 17,000 events could be avoided if it were to increase by 10%.²¹ And with every 100 strokes and heart attacks costing the health system almost £1.4 million and £750,000 respectively, improving cholesterol management will result in significant savings to the NHS.²¹ To secure long-term resourcing, there must be greater cross-governmental buyin, including among the Treasury and Cabinet Office.

Progress is currently limited by a lack of cohesion in NHS England's approach to cholesterol management.

Between varying operational and clinical guidance, it is not clear enough what needs to be achieved in cholesterol. For example, inconsistent incentivisation of cholesterol treatment to target is contributing to unwarranted variation in CVD outcomes. The reintroduction of cholesterol indicators in the 2023/24 Quality and Outcomes Framework (having been removed in 2014) has brought renewed incentives in healthcare practice.^{22 23} However, reference to secondary prevention in cholesterol is still absent from the Priorities and Operational Planning Guidance, limiting regional-level commitment.24

'We know what needs to happen in cholesterol. We just need to get the right policies and processes in place.'

'If operational planning guidance is not specific about what ICBs need to achieve. we won't be able to put forward a case for focusing our resources on cholesterol management.'



While certain goals for cholesterol management have been met, greater aspiration is needed for treatment to target. For example, the current Quality and Outcomes Framework aim – to treat cholesterol to target in 35% of people at high risk of cardiovascular events – is leaving the remaining 65% of people vulnerable to potential future events.²³ While goals for prescription have recently been raised,^{24,25} the rate of improvement is still too slow. This is leaving many people at risk of heart attack and stroke, and contributes to a 'reach and rest' mentality around achieving targets.

Cholesterol is still taking an unacceptable toll on underserved communities.

Leading health organisations, such as The King's Fund, have highlighted the impact of cholesterolrelated inequalities.² And the hard-fought inclusion of cholesterol as one of five areas for accelerated improvement in NHS England's Core20PLUS5 initiative on health inequalities is a promising development.²⁶ Despite this, national audit data reflect the deep health inequalities that still prevail.¹⁵

Going forward, NHS England and the **Department of Health and Social Care must** consistently position cholesterol as a key risk factor for CVD.

While the NHS Long Term Plan calls for focus on the 'ABC' risk factors for CVD (atrial fibrillation, blood pressure and cholesterol),²⁷ cholesterol tends to have a lower public profile. For example, the Office for Health Improvement and Disparities' programme 'Cardiovascular disease prevention: applying all our health' encourages training to increase healthcare professionals' confidence in managing CVD risk, 'especially high blood pressure and atrial fibrillation'; no mention is made of cholesterol.²⁸ And while cholesterol is included in 'Health matters: preventing CVD', the national programme focuses primarily on identification and prescription,²⁹ with no explicit focus on lowering cholesterol to target levels. To deliver effective CVD prevention, it is essential that cholesterol receives sufficient attention as part of a comprehensive multirisk-factor approach.

Cholesterol levels need to become everyday numbers that we all understand.

Greater public awareness could encourage people to seek timely advice, adopt positive lifestyle changes and adhere to treatment plans. Currently, CVD awareness campaigns commonly focus on other risk factors, such as the successful blood pressure initiative 'Know Your Numbers'.³⁰ Drawing inspiration from this for a cholesterol-focused campaign could help improve cardiovascular outcomes and address cholesterolrelated inequalities.

'Policy initiatives on CVD prevention, including those targeting high cholesterol, are yet to demonstrate success in severing the link between societal inequality and poorer CVD outcomes."



AT THE REGIONAL LEVEL,



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what are the barriers to and opportunities for improving cholesterol management?

The ICB structure offers renewed opportunity to address CVD, but cholesterol is inconsistently prioritised in ICB planning.

Improving cardiovascular outcomes is essential for achieving the core integrated care system (ICS) aims of improving population health, enhancing productivity and reducing health inequalities.³¹ However, there is variable prioritisation of cholesterol – and of cardiovascular health more broadly – in ICB Joint Forward Plans.³ A promising step forward would be for ICBs to use the new allocation of £3.3 million of funding from NHS England to establish leadership posts for cardiovascular prevention in each ICS.³² 'Anything that requires more than one year to get a return on investment just won't happen within the current funding model for ICBs. And that's a political choice.'

DR PETER GREEN, CH HEART UK



PROF. AHMET FUAT, HONORARY CONSULTANT LIPIDOLOGIST, COUNTY DURHAM AND DARLINGTON FOUNDATION TRUST

The one-year ICB funding model restricts meaningful progress in CVD prevention and must be reassessed.

Short-term funding is resulting in efforts focused on return on investment within the year. UCLPartners' Size of the Prize modelling clearly evidences the business case for longerterm investment in cholesterol management to effectively reduce cardiovascular events and healthcare costs at scale.

Data must be used to address inequalities in the detection and management of cholesterol within each ICB.

Cardiovascular-related inequalities are diverse and extend to the neighbourhood level, as do patterns in how populations access services. The new NHS CVDPREVENT platform and tools such as CVDACTION offer a revolutionary step forward for transparent, quantitative assessment of progress, supporting organisations to effectively interpret available data and target resources accordingly.¹⁵ Indicators provide insight into the national care landscape and inequalities in optimal cholesterol management, enabling benchmarking to set future targets.³³ Such data can be harnessed in needs analyses to develop regionally tailored strategies and support innovative commissioning to reduce cholesterol-related health inequalities.³⁴ Given the proven cost-efficacy of tailored cardiovascular prevention models focused on high-risk groups,¹⁰ these populations must be prioritised.

Stronger peer learning and knowledge exchange could accelerate progress.

Given the existing pressures in the NHS,³⁶ ICBs and their local providers can think creatively to develop novel pathways for CVD prevention, utilising current resources by working with social care, employers, NGOs, community assets, and other services and infrastructure. Increased sharing of case studies, resources and template 'business plans' between ICBs could support the accelerated roll-out of new initiatives and pathway redesign to boost improvement in cholesterol management across England.

Case study

A pilot led by Health Innovation Kent Surrey Sussex has shown that releasing a monthly cholesterol dashboard newsletter, including CVDPREVENT indicator results, can support transparency and accountability, as well as encouraging equitable improvement in CVD prevention.³⁵

'At the end of the day, we're all part of the same health system. It is important to collaborate and share resources such as delivery models and case studies – to prevent reinventing the wheel and help scale up impactful solutions to improve areas such as CVD prevention.'

NICK PRINGLE, SENIOR ADVISOR AND CARDIOVASCULAR DISEASE PREVENTION PROGRAMME LEAD, HEALTH INNOVATION EAST



AT THE LOCAL LEVEL,



what are the barriers to and opportunities for improving cholesterol management?

Cholesterol management needs to be integrated into the care pathways for various long-term conditions, such as diabetes, cancer and chronic kidney disease.

The prevention agenda must be holistic, aiming to delay the onset of multiple conditions rather than just one.⁸ Reducing cholesterol can decrease the risk of developing other conditions (e.g. dementia, cancer), yet awareness of this is limited and diseases are often considered in silos.^{37 38} A more person-centred, multidisciplinary approach to preventing ill health could accelerate progress, integrating cholesterol management into broader patient interactions with the health service.²

Current care pathways are limiting progress.

A recent literature review reported late intervention, lack of follow-up and poor treatment adaptation as key factors leading to suboptimal cholesterol treatment to target.⁴ While screening to identify people living with high cholesterol can be effective, subsequent referral pathways and system capacity are often not fit for purpose, leaving many people at high risk of cardiovascular events.

Case study

A pilot project run by Health Innovation North East and North Cumbria improved treatment to target by 12 percentage points through pharmacist-led cholesterol optimisation in patients attending vascular and diabetic foot clinics.³⁵ If these reductions were maintained, modelling has estimated that it would reduce the risk of major cardiac events by 19% and 31% in patients of vascular and diabetic foot clinics, respectively.³⁵

Case study

A lipid referral form piloted in Sussex and Kent & Medway ICSs has helped guide GPs on pathways for cholesterol management. This has helped to reduce waiting times for hospital-based cholesterol services, which were reaching 12 months, and addressed the fact that 80% of referrals were previously being rejected at triage.³⁵

Redesigning pathways to include a broader range of healthcare professionals can help address workforce pressures – a known barrier in cholesterol management.

Growing waiting times for GP consultations across England,³⁶ and a lack of provider capacity for routine oversight of cholesterol levels, pose significant risks to cardiovascular health.³⁹ Greater involvement of nurses and pharmacists in day-to-day cholesterol management could help rapidly address such pressures and support more comprehensive care for long-term conditions. Group consultations and peer-support initiatives could underpin this, having had a successful impact on management programmes for blood pressure.⁴⁰ In particular, redesigning pathways to include pharmacist-led cholesterol management could improve equitable access, as the locations and capacities of lipid clinics are not consistent across England.⁴¹ Pathways should be redesigned in consultation with local populations (including social care, voluntary sector, community groups and local cholesterol champions in GP practices) to ensure that care is accessible, meets people's needs, and creatively harnesses existing local infrastructure and the capacity of local healthcare providers.

Greater use of testing in community settings can improve risk identification and management.

As flagged by the Darzi review, continued underinvestment in community-based care provision is exacerbating the burden on hospitals and eroding health system capacity through skewed, ineffective resource allocation.³⁶ Focus needs to be placed back on communities, with the NHS Health Check providing an opportunity for cholesterol screening. Currently, average uptake of these checks is less than 50% in England.⁴² The advent of a digital format for health checks – including an at-home finger-prick blood test for cholesterol – now allows people to self-check and local authorities to deliver in-person checks in community settings.^{43 44} This development could help detect high cholesterol among underserved groups. Point-of-care testing for cholesterol (and related conditions such as familial hypercholesterolaemia and high Lp(a)) in pharmacies could also support this, just as NHS testing of blood pressure in pharmacies has seen promising uptake.^{45 46} Local providers should engage community leaders and the voluntary sector to boost engagement in such screening opportunities, as well as increasing public awareness of CVD risk, to secure progress in improving outcomes for highrisk and underserved groups.

Effective resources are needed to support healthcare professionals with best-practice cholesterol management,⁴⁸ particularly in the face of inconsistent national guidelines.⁴

Research by HEART UK revealed that GPs only occasionally monitor patients' response to lipidlowering treatment, and often do not appropriately refer patients to lipid clinics.³⁹ Limited awareness of advanced lipid-lowering therapies and referral pathways, and low confidence in their use, may contribute to this suboptimal treatment to target.⁴⁸ Clear guidance is particularly important following the National Institute for Health and Care Excellence (NICE) guidance update in 2023,⁴⁹ where consultation responses reflected frustration that the target cholesterol thresholds were not low enough, influenced by considering cost-efficacy at a broader system scale rather than purely clinical best practice for patient risk reduction.⁵⁰

Regular review of practice-level data can support CVD prevention.

While HEART UK found that 93% of GPs agreed or strongly agreed that cholesterol and CVD data collection and management are important for patient outcomes, the practical use of these data to improve care delivery is often lacking.⁵¹ The CVDACTION pilot scheme holds significant potential for targeted action on cholesterol-related health inequalities and for managing high-risk populations.⁵² It links patient characteristics with core cholesterol indicators, allowing the results to be filtered (e.g. by deprivation quintile, ethnicity etc.). All of this boosts the impact of national audit data for local care provision. Alongside this, it is important for practices to monitor medication adherence, patient engagement and regularity of treatment re-evaluation to support effective cholesterol management.^{4 48}

Case study

A pilot scheme run by Health Innovation North East and North Cumbria has demonstrated the utility of pharmacy technicians using a digital search toolkit for screening online medical records. This helped to identify people who need more advanced cholesterol management, and conduct triage assessments.³⁵

Case study

It is estimated that only 7% of people living with familial hypercholesterolaemia currently receive a diagnosis.²⁷ The Child-Parent Screening Programme being piloted by the Health Innovation Network demonstrates how a heel-prick blood test during routine child immunisation visits to a GP can help detect familial hypercholesterolaemia and determine whether referral to genetic testing is needed.⁴⁷

IT IS TIME TO COMMIT TO CHOLESTEROL

Comprehensive prevention of CVD is arguably the single greatest health challenge that we must deliver on in the next five years.

Efforts must span all major risk factors and lifestyle behaviours – improving cholesterol management as part of a holistic approach is now not only achievable, but critical. High cholesterol affects the majority of adults in England. And, with suboptimal treatment to target being commonplace, especially among the highest risk groups, we must find a better way forward if we are to reduce cardiovascular events and the disability, suffering and costs they bring – both to the NHS and to our population.

We stand at a critical juncture, with NHS England and ICBs having a crucial role to play. But this must start with a clear, ambitious goal set at a national level. Until we have this comprehensive vision for cholesterol as part of a multi-risk factor approach to CVD prevention, we are failing to fight the deep inequalities in health that strike at the heart of our society.



References

- 1. Office for Budget Responsibility. 2024. *Fiscal risks and sustainability.* London: OBR
- Raleigh V, Jefferies D, Wellings D. 2022. Cardiovascular disease in England: supporting leaders to take actions. London: The King's Fund
- WA Communications. 2023. Engaging with Integrated Care Systems priorities: Integrated Care Board priority map. Available from: <u>https://wacomms.co.uk/engaging-with-integrated-caresystems-priorities/</u> [Accessed 21/10/24]
- Reynolds M, Pottle A, Quoraishi S. 2021. Current Perspectives on the Attainment of Lipid Modification Goals Relating to the Use of Statins and Ezetimibe for the Prevention of Cardiovascular Disease in the United Kingdom. Vasc Health Risk Manag 17: 227-37
- 5. Office for National Statistics. 2024. Deaths registered summary statistics, England and Wales: 2023 dataset. Available from: <u>https://www.ons.gov.uk/peoplepopulationandcommunity/</u> <u>birthsdeathsandmarriages/deaths/datasets/</u> <u>deathsregisteredsummarystatisticsenglandandwales</u> [Accessed 21/10/24]
- 6. British Heart Foundation. 2024. UK Factsheet. London: British Heart Foundation
- Collins B, Bandosz P, Guzman-Castillo M, et al. 2022. What will the cardiovascular disease slowdown cost? Modelling the impact of CVD trends on dementia, disability, and economic costs in England and Wales from 2020–2029. PLoS One 17(6): e0268766
- 8. Bell J, Berry T, Deanfield J, et al. 2024. Prosperity Through Health: The Macroeconomic Case for Investing in Preventative Health Care in the UK. London: Tony Blair Institute for Global Change

- 9. Cholesterol Treatment Trialists (CTT) Collaborators. 2012. The effects of lowering LDL cholesterol with statin therapy in people at low risk of vascular disease: meta-analysis of individual data from 27 randomised trials. *Lancet* 380(9841): 581-90
- Budig K, Harding E. 2021. Secondary prevention of heart attack and stroke in Europe: consensus report. London: The Health Policy Partnership
- National Institute for Health and Care Excellence. 2024. CVD risk assessment and management: what are the risk factors? Available from: <u>https://cks.nice.org.uk/topics/cvd-riskassessment-management/background-information/risk-factorsfor-cvd [Accessed 03/09/24]</u>
- British Heart Foundation. Familial hypercholesterolaemia. Available from: <u>https://www.bhf.org.uk/informationsupport/</u> <u>conditions/familial-hypercholesterolaemia</u> [Accessed 02/09/24]
- 13. Lp(a) Taskforce. 2023. A call to action Lipoprotein(a) Taskforce. England: Lp(a) Taskforce
- 14. NHS Digital. 2023. Health Survey for England 2021 part 2. Available from: <u>https://digital.nhs.uk/data-and-information/</u> <u>publications/statistical/health-survey-for-england/2021-part-2/</u> <u>adult-health-cholesterol</u> [Accessed 06/11/24]
- Office for Health Improvement and Disparities, NHS Benchmarking Network. CVDPREVENT Data Explorer. Available from: <u>https://www.cvdprevent.nhs.uk/data-explorer</u> [Accessed 15/09/24]
- Williams R, Jenkins D, Ashcroft D, et al. 2020. Diagnosis of physical and mental health conditions in primary care during the COVID-19 pandemic: a retrospective cohort study. *Lancet Public Health* 5(10): e543-e50
- 17. HEART UK. 2020. Cardiovascular Disease Care: Best Practice. Maidenhead: HEART UK

- Office for Health Improvement and Disparities, NHS Benchmarking Network. 2023. CVDPREVENT: Third annual audit report. Bristol: Office for Health Improvement and Disparities, NHS Benchmarking Network
- NHS Benchmarking Network, Office for Health Improvement and Disparities. 2024. CVDPREVENT Deep Dive: inequalities in cholesterol management by sex for patients with CVD. London: NHS Benchmarking Network, Office for Health Improvement and Disparities
- 20. British Heart Foundation. 2023. Labour pledges to significantly reduce deaths from heart attack and stroke. Available from: <u>https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2023/may/labour-health-mission-pledge-reduce-heart-attack-stroke-deaths [Accessed 03/09/24]</u>
- 21. UCLPartners. Size of the Prize Helping the NHS to Prevent Heart Attacks and Strokes at Scale. Available from: <u>https://</u> <u>uclpartners.com/project/size-of-the-prize-for-preventing-heartattacks-and-strokes-at-scale/</u> [Accessed 06/11/24]
- 22. NHS Clinical Digital Resource Collaborative. 2023. Using CDRC searches to meet new QOF cholesterol indicators. Available from: <u>https://cdrc.nhs.uk/2023/04/20/using-cdrc-searches-to-meet-new-qof-cholesterol-indicators/</u> [Accessed 20/09/24]
- 23. NHS England. 2024. *Quality and Outcomes Framework guidance for 2024/25.* Leeds
- 24. NHS England. 2024. 2024/25 priorities and operational planning guidance. Leeds: NHS England
- 25. NHS England. 2023. 2023/24 priorities and operational planning guidance. Leeds: NHS England
- 26. NHS England. Core20PLUS5 (adults) an approach to reducing healthcare inequalities. Available from: <u>https://www.england.</u> <u>nhs.uk/about/equality/equality-hub/national-healthcare-</u> <u>inequalities-improvement-programme/core20plus5/</u> [Accessed 09/09/24]
- 27. National Health Service England. 2019. *The NHS Long Term Plan.* London: NHSE
- 28. Office for Health Improvement and Disparities. 2022. Cardiovascular disease prevention: applying All Our Health. Available from: <u>https://www.gov.uk/government/publications/</u> <u>cardiovascular-disease-prevention-applying-all-our-health/</u> <u>cardiovascular-disease-prevention-applying-all-our-health/</u> [Accessed 09/09/24]
- 29. Public Health England. 2019. Health matters: preventing cardiovascular disease. Available from: <u>https://www.gov.</u> <u>uk/government/publications/health-matters-preventing-</u> <u>cardiovascular-disease/health-matters-preventing-</u> <u>cardiovascular-disease</u> [Accessed 09/09/24]
- Blood Pressure UK. 2023. Know Your Numbers! Week. Available from: <u>https://www.bloodpressureuk.org/know-your-numbers/</u> know-your-numbers-week/ [Accessed 09/09/24]
- 31. Charles A. 2022. Integrated Care Systems Explained: Making sense of systems, places and neighbourhoods. Available from: <u>https://www.kingsfund.org.uk/insight-and-analysis/long-reads/</u> integrated-care-systems-explained [Accessed 02/09/2024]
- 32. NHS England. Cardiovascular disease high impact interventions. Available from: <u>https://www.england.nhs.uk/ourwork/</u> <u>prevention/secondary-prevention/cardiovascular-disease-high-</u> <u>impact-interventions/</u> [Accessed 21/10/24]
- 33. Thompson K, Thompson L. 2021. Cardiovascular disease: building back better. Available from: <u>https://ukhsa.blog.gov.</u> <u>uk/2021/02/12/cardiovascular-disease-building-back-better/</u> [Accessed 09/09/24]
- British Heart Foundation. 2021. The untold heartbreak: Cancelled procedures. Missed appointments. Lost lives. Covid-19's devastating impact on cardiovascular care and the case for building a stronger and more resilient health system. London
- 35. Health Innovation Network. 2023. The AAC/AHSN Lipid Optimisation & Familial Hypercholesterolaemia National Programme: Final impact report. London: Network HI
- 36. The Rt Hon. Professor the Lord Darzi of Denham. 2024. Independent Investigation of the National Health Service in England. London: Department of Health & Social Care

- Hussain SM, Robb C, Tonkin AM, et al. 2024. Association of plasma high-density lipoprotein cholesterol level with risk of incident dementia: a cohort study of healthy older adults. Lancet Reg Health West Pac 43: 100963
- Mayengbam SS, Singh A, Pillai AD, et al. 2021. Influence of cholesterol on cancer progression and therapy. *Transl Oncol* 14(6): 101043
- 39. HEART UK. 2018. State of the Nation: Cardiovascular Disease. Available from: <u>https://www.heartuk.org.uk/downloads/health-professionals/heart-uk-state-of-the-nation-report-2018.pdf</u> [Accessed 10/10/24]
- 40. The AHSN Network. 2023. Blood Pressure Optimisation Programme: Impact Report. The AHSN Network
- Royal Pharmaceutical Society. 2019. Pharmacy: Helping to prevent and support people with Cardiovascular disease. Royal Pharmaceutical Society, HEART UK
- 42. Office for Health Improvement and Disparities. 2021. Annex B: a summary of analyses and evidence on the current NHS Health Check programme. Available from: <u>https://www.gov.uk/</u> government/publications/nhs-health-check-programme-review/ annex-b-a-summary-of-analyses-and-evidence-on-the-currentnhs-health-check-programme [Accessed 25/09/24]
- 43. Department of Health and Social Care, The Rt Hon Steve Barclay MP. 2023. New digital health check to tackle deadly cardiovascular disease. Available from: <u>https://www.gov.uk/</u> government/news/new-digital-health-check-to-tackle-deadlycardiovascular-disease [Accessed 09/09/24]
- 44. Department of Health & Social Care. 2024. *Appendix A: Digital NHS Health Check FAQs*. London: Department of Health & Social Care
- 45. NHS Business Services Authority. 2023. General Pharmaceutical Services in England 2015/16 - 2022/23. Available from: <u>https://www.nhsbsa.nhs.uk/statisticalcollections/general-pharmaceutical-services-england/generalpharmaceutical-services-england-201516-202223</u> [Accessed 10/10/24]
- 46. Community Pharmacy England. 2024. Clinical services statistics. Available from: <u>https://cpe.org.uk/funding-and-reimbursement/</u><u>nhs-statistics/clinical-services-statistics/</u>[Accessed 10/10/24]
- 47. Health Innovation Network. Child-parent screening. Available from: https://thehealthinnovationnetwork.co.uk/programmes/ cardiovascular-disease/lipid-management-and-familialhypercholesterolemia/child-parent-screening/ [Accessed 08/09/24]
- 48. Health Innovation Manchester. 2023. Developing the Greater Manchester Lipid Management Pathway. Manchester: Health Innovation Manchester
- 49. National Institute for Health and Care Excellence. 2023. Cardiovascular disease: risk assessment and reduction, including lipid modification. London
- National Institute for Health and Care Excellence. 2023. Cardiovascular disease: risk assessment and reduction, including lipid modification - Escalation of Therapy Consultation on draft guideline - Stakeholder comments table 22/09/2023 – 05/10/2023. London: National Institute for Health and Care Excellence
- 51. HEART UK. 2015. *Data: Helping us beat cholesterol.* Maidenhead: HEART UK
- 52. UCLPartners. CVDACTION: Transforming the prevention of cardiovascular disease. Available from: <u>https://uclpartners.com/our-priorities/cardiovascular/cvdaction-transforming-the-prevention-of-cardiovascular-disease/</u>[Accessed 09/10/24]

Ritchie I, Harding E. 2025. *Committing to cholesterol: preventing cardiovascular disease to secure the future of the NHS*. London: The Health Policy Partnership

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