Public Health England

What Cardiovascular Disease Prevention Looks Like

The What Good Looks Like (WGLL) programme aims to facilitate the collective efforts of local organisations and wider society (the system) towards improvements in their population health outcomes. This publication represents the practical translation of the core guiding principles and features of what a good quality CVD prevention programme looks like in any defined place. It was developed collaboratively through the synthesis of existing evidence, examples of best practice, practitioners' experiences and consensus expert opinions. It is intended to serve as a guide and will be iterative with regular reviews and updates when new evidence and insights emerge.

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Introduction

Over recent decades great strides have been taken in reducing premature deaths due to CVD in England. However, CVD remains a significant cause of disability, death and health inequalities through conditions such as heart disease, strokes, kidney disease and dementia.

- CVD is the leading cause of years of life lost[1] and causes almost a quarter of premature deaths with 33,800 deaths in under 75s per year in England
- CVD is a key driver of health inequalities, accounting for a quarter of the life expectancy gap between rich and poor. Global Burden of Disease (GBD) data show that people living in the north of England have more years of life lost to CVD on average than in the south – an effect driven largely, but not wholly, by socioeconomic differences[1]
- Healthcare costs in England relating to CVD are estimated at £7.4 billion each year, with CVD costing the wider economy £15.8 billion annually[2]
- The rate of CVD increases with age[3] and as the population ages many people will live with multiple long-term conditions
- High blood pressure, cholesterol and fasting plasma glucose are amongst the top 10 risk factors for years of life lost in England[1]. Treatment of these risk factors and atrial

[1] Changes in health in the countries of the UK and 150 English Local Authority areas 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016, Steel et al, The Lancet, 2018

[2] British Heart Foundation (2018) CVD Statistics: BHF England Factsheet. (Last reviewed and updated February 2018).

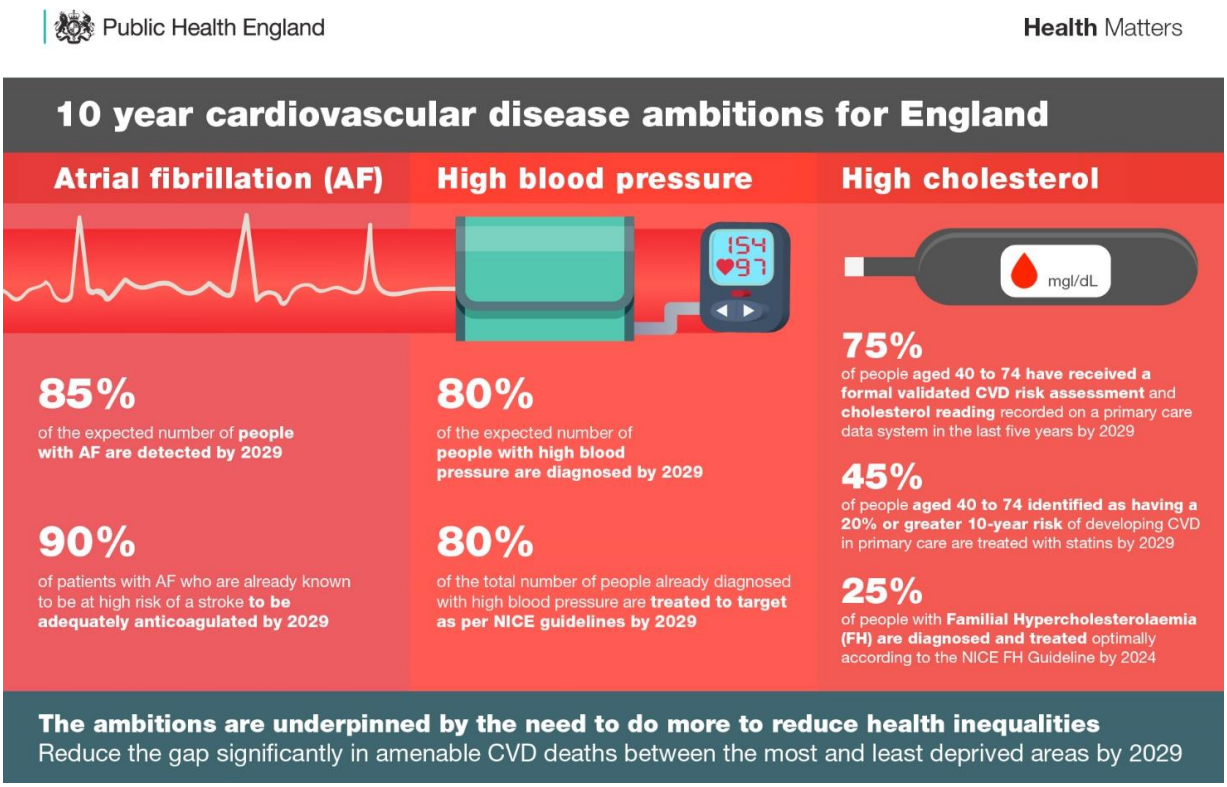
[3] British Heart Foundation (2017) The CVD challenge in England.

fibrillation reduces the risk of cardiovascular events. Late diagnosis of these high-risk conditions and under treatment are common and there is wide variation in performance across England.

There is a wealth of evidence on effective interventions to reduce the risk of CVD through behavioural changes and treatment of risk factors. This document focuses on the NHS Health Check programme; management of hypertension, cholesterol and atrial fibrillation; NHS Diabetes Prevention Programme and cardiac rehabilitation as the interventions with greatest impact. Other chapters in this publication will focus on important behavioural changes including smoking and healthy weight.

Vision

Vision: We will build healthier communities with reduced inequalities by taking a system wide and systematic approach to reducing CVD risk factors and implementing evidence based clinical interventions to reduce the incidence and progression of CVD. This will contribute to the NHS Long Term Plan milestone for the NHS to help prevent up to 150,000 heart attacks, strokes and dementia cases over the next 10 years. On cardiac rehabilitation, by 2028 the proportion of patients accessing cardiac rehabilitation will be amongst the best in Europe, with up to 85% of those eligible accessing care (NHS LTP). WE will work towards achieving the 10 year CVD ambitions for England agreed by the CVD Prevention System Leadership Forum:



Local system leadership

Tackling CVD requires local system leadership by STPs and ICSs, including local authorities, to engage partners in delivering a system wide approach to the use of population health intelligence to plan and deliver services effectively, engage communities and maximise the use of community assets. This includes actions by local government and the NHS to address the wider determinants of health, behavioural risk factors and early detection of risk conditions for CVD. Many of these actions will also contribute to the prevention of other non-communicable diseases.

Health inequalities

Any approach to prevent CVD must also address the fact that 40% of amenable CVD deaths occur in the three most deprived deciles. Health equity audits can be used to develop universal programmes, such as NHS Health Check, to tackle inequalities and to identify needs for targeted services. Targeted approaches are needed for groups with a higher incidence of CVD including those with severe mental illness and those of South Asian and African Caribbean ethnicity. Annual health checks for people with severe mental illness or learning disabilities are effective in identifying risk factors and making earlier diagnosis of CVD.

There are many opportunities to reduce inequalities by taking action on risk factors throughout the life course from the antenatal period onwards – these are covered in other chapters of this publication e.g. tobacco and healthy weight. Given the greater incidence, and at an earlier age, of CVD in deprived populations and some ethnic groups there are opportunities to target these groups earlier in the life course.

Principles

The following are principles which will enable successful action to prevent CVD

- **Leadership to develop a compelling local narrative and take a whole system approach** with partners and the local community to tackle primary, secondary and tertiary prevention of CVD and address inequalities. This will support development of joint plans and alignment of actions and pathways between services as well as engage the population in knowing their numbers and taking action. Integrated Care Systems will provide opportunities for joint commissioning for CVD prevention by local government and the NHS. Leadership is needed at all levels within a local system to ensure effective action is taken. CVD networks can support leadership and sharing of good practice across systems
- **Plans informed by population health intelligence** to identify need and priorities. This can be across an ICS to identify strategic priorities and at Primary Care Network and practice level to target action. It will also **inform actions to address variation within and between populations**
- **Systematic population-based approach to prevention using evidence-based interventions at scale** will allow identification of all those eligible for testing or treatment, offer of appropriate interventions and reduction of inequalities
- **Behavioural science and local insights** are used to engage professionals and the population in CVD prevention
- Improving detection and management of the high risk conditions will require **new models and pathways** in primary care and the community – eg systematic case finding of the under treated, pharmacist or nurse led treatment optimisation,

community mobilisation with wider access to BP testing making it easier for people to know, understand and act on their numbers.

- **Quality improvement** embedded within the programme and underpinned by **routine collection and use of data** to support development of the programme to improve delivery and outcomes, achieve the CVD prevention ambitions and reduce variations
- A **health and wellbeing strategy** which provides an environment which supports healthy choices on smoking, diet, healthy weight, physical activity and alcohol; and health and care services which embed Making Every Contact Count
- Supported by **health in all policies** approaches to ensure community assets and services support healthy lifestyles

Application of evidence

NICE has identified a range of interventions that can be delivered at a population and individual level as part of a system wide approach to addressing CVD.

- **Make a healthy diet the easy choice**[4]: work to continue to reduce the salt and saturated fat content of food consumed inside and outside the home.
- **Improve air quality**[5] [6]: by taking action to reduce emissions.
- **Make physical activity the easy choice**: by developing an environment which encourages active travel and physical activity in public spaces.
- **Identify and assess people for their risk of CVD**[7]: the NHS Health Check programme provides a crucial mechanism for identifying people 40-74 years at risk of CVD, helping people to reduce their risk of developing CVD and the early detection of disease. Effective strategies for assessing the risk of developing type 2 diabetes allow referral to the NHS Diabetes Prevention Programme
- **Support individuals at risk of CVD to make behaviour changes**[7]: becoming more active, maintaining a healthy weight, safe levels of drinking and stopping smoking will help individuals to reduce their risk
- **Optimise clinical treatment**[8] [9]: health outcomes can be improved if people at risk of CVD and those diagnosed with disease receive optimal clinical treatment.

All Our Health has a CVD Prevention e-learning module providing bite sized sessions for all health and care professionals. NHS RightCare has produced an optimal value pathway for CVD prevention and will be prioritising its implementation in 2019/20. The size of the prize shows potential cardiovascular events avoided and money saved through CVD prevention interventions at STP level.

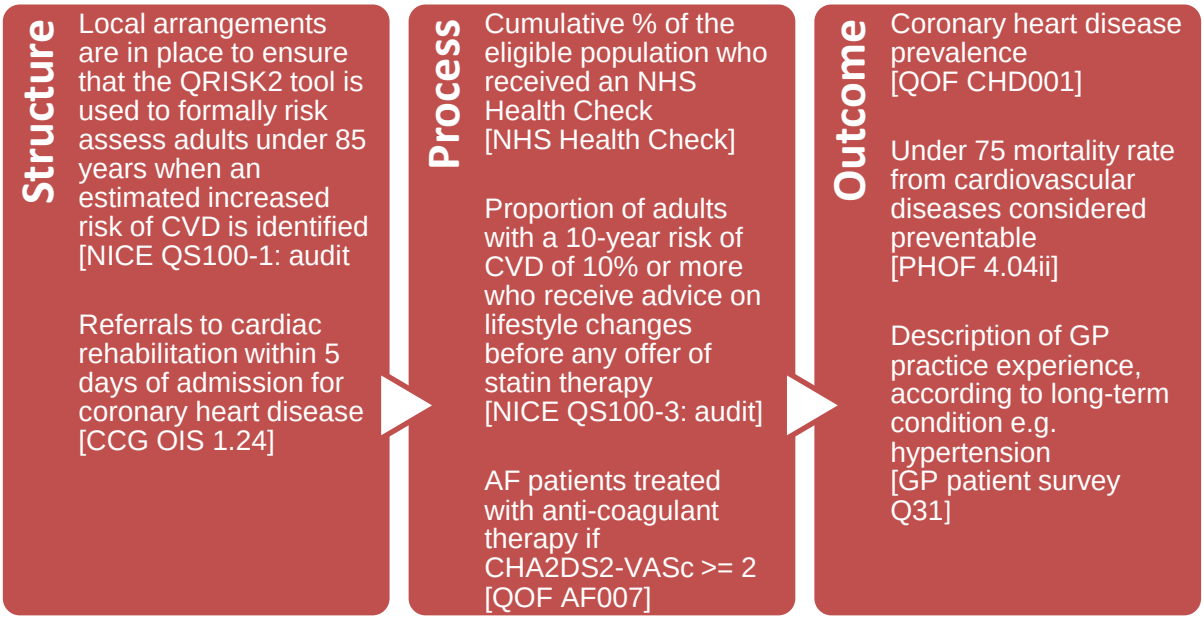
Measuring our achievements

Measurement is key to the 'Plan-Do-Study-Act'[10] improvement cycle – allowing systems to understand where work may be needed and review the success of any changes. There is a multitude of national indicators and other sources available at the local level that can be used to monitor local progress in CVD prevention, many of which are available via PHE's 'Fingertips' Public Health Profiles tool. NHS RightCare Where to Look Packs identify variations in detection and management of CVD risk factors. Where national indicators do

[4] NICE (2010) cardiovascular disease prevention (system level)
[5] NICE (2017) Air pollution: outdoor air quality and health
[6] NICE (2019) Air pollution quality standard
[7] NICE cardiovascular disease prevention pathway overview (individual level)
[8] NICE (2016) Hypertension in adults: diagnosis and management
[9] NICE (2016) Atrial Fibrillation: management
[10] Plan Do Study Act cycles. NHS Improvement

not exist, local audit against quality standards can provide additional insight[11]. The national CVD prevention audit for primary care will provide real time data, including cholesterol data which is not currently available, to track progress and inform local action to improve detection and treatment of high risk conditions for CVD.

Mapping the local system can help to identify useful measurements, and baseline assessment tools may highlight particular areas for attention[12]. Areas may wish to consider measurements within a structure, process and outcome model. An example of how indicators, quality standards, and other datasets from a range of sources could align with this model is shown below:



Regardless of which measures are chosen locally, where possible it is useful to consider:

- How are they changing over time? Could a statistical process control (SPC) chart be drawn?[13]
- How do they compare to other areas? Consider using 'nearest neighbours' which can be automatically compared for indicators shown in PHE's Fingertips Public Health Profiles.
- Do they reveal any inequalities? Of particular relevance to CVD prevention are inequalities by deprivation, gender, ethnicity, or the presence/absence of serious mental illness.

[11] Such as NICE quality standard 100
[12] NICE produces a range of implementation resources
[13] Making data count