

Emergency admissions in the under 75's with a main diagnosis of cardiovascular event.

Introduction

Cardiovascular disease (CVD) is the country's biggest killer, causing around one in three deaths, but up to 90% of the risk of a first heart attack is due to lifestyle factors that can be changed (Care Quality Commission, 2009). Investment in public health based interventions to reduce cardiovascular risk at a population level; primary care can reduce the number of people likely to be admitted to hospital with CVD related events such as heart attacks, stroke, heart failure and kidney disease.

Local evidence

JSNA

Key information about CVD, its prevalence in Wirral and mortality rates are in the Wirral JSNA, including information about the prevalence of lifestyle factors locally which impact on CVD. See <http://info.wirral.nhs.uk/ourjsna/wirral2009-10/healthandwellbeing/about.html>. NHS Wirral also produced a [Health Equity Audit on CHD](#) in 2010 which is also available on the JSNA site.

Strategic Plan Evaluation 2010

A comprehensive evaluation of the CVD programme in Wirral (including the CVD Local Enhanced Service and the Intermediate Heart Failure Service) was carried out by NHS Wirral in 2010 to explore progress in delivering the NHS Wirral Strategic Plan, its impact on the health of the Wirral and identify further improvements. The [CVD chapter of the Strategic Plan evaluation report](#) describes underpinning evidence and performance data, including cost effectiveness, for the CVD LES programme and Heart Failure Service.

The report also includes findings from an external evaluation carried out by Engage2Change, on the CVD LES programme and Heart Failure Service, with service users and staff. The Engage2Change evaluation is included as an [appendix to the above report](#).

Map of Medicine

[Map of Medicine](#) offers evidence-based patient care journeys, providing clinicians with guidelines, references and clinical information. There are currently over 390 NICE compliant, regularly reviewed national pathways. There are also a number of 'localised' pathways which have been approved for use across the Wirral local health community.

National Policy Guidance

The National Institute for Health and Clinical Excellence (NICE) have produced public health [guidance on the prevention of cardiovascular disease \(CVD\) at population level](#) (2010). This document details advice and guidance on implementing CVD prevention programmes.

NICE have also produced an implementation tool which accompanies their CVD prevention guidance, [Prevention of cardiovascular disease at population level: Implementing recommendations for practice](#) (June 2010). This includes recommendations for good practice in CVD prevention programmes, including preparing and developing programmes and considering resources, leadership and evaluation. It also gives details of the potential cost savings associated with implementing the recommendations.

The Department of Health [National Service Framework for Coronary Heart Disease \(2000\)](#) identified the need for a substantial increase in the number of patients being offered appropriate identification, investigation and treatment of heart failure in an attempt to reduce mortality and morbidity. It established 12 standards for the prevention, diagnosis and treatment of coronary heart disease and outlined service models for their delivery. On the prevention side, there is a focus on reducing heart disease in the population and preventing CHD in high-risk patients in primary care.

More recent guidance from DH (2008), [Putting prevention first. Vascular Checks: risk assessment and management](#) further focuses on the prevention of vascular diseases and encourages taking action to reduce the risk factors associated with vascular disease.

Relevant journals/ literature

Further supporting literature about CVD and the impact of early identification and prevention on hospital admissions can be found in the following journal articles and reports.

[Healthcare delivery models for prevention of cardiovascular disease \(CVD\)](#) by The Health Foundation (2009) considers relevant research evidence on particular interventions aimed at preventing CVD.

[Predicting the impact of population level risk reduction in cardio-vascular disease and stroke on acute hospital admission rates over a 5 year period—a pilot study](#) (2006) by Whitfield et al. attempts to present an economic argument for funding a public health-based prevention programme in coronary heart disease. The study investigated the economic consequences of investment in public health on the cost of secondary care at a population level.

Further research by [Kosiborod et al \(2007\)](#), [D'Agostino et al \(2008\)](#) and [Griffin et al \(2010\)](#) also exemplifies the benefits of identifying high risk patients in reducing the frequency of follow up and the intensity of treatment.

A study by the Care Quality Commission in 2009 [*Closing the gap. Tackling cardiovascular disease and health inequalities by prescribing statins and stop smoking services*](#) focused on the stark variations in the prevalence of CVD, the prescribing of statins and stop smoking services as part of wider prevention programmes to reduce inequalities in CVD.

Capewell and Graham's study [*Will Cardiovascular Disease Prevention Widen Health Inequalities?*](#) (2010) also explores the impact of socioeconomic inequalities on the prevalence of CVD and compares the high risk approach for preventing CVD with the whole-population approach for reducing social inequalities in CVD.

Purdy et al (2010) in [*Emergency admissions for coronary heart disease: A cross-sectional study of general practice, population and hospital factors in England*](#) explores factors that influence emergency admissions for coronary heart disease.

The King Fund (2010) has also produced a [*report on avoiding hospital admissions*](#) in which the link between quality of primary care and reduced admissions for coronary heart disease is explored.

HEART UK recently released a report, [*Bridging the gaps: tackling inequalities in cardiovascular disease*](#) (March 2013), which identifies inequalities in CVD prevalence along regional, ethnic and socio-economic lines. The report makes a number of recommendations urging the Government to consider the possible impact on health inequalities when developing its domestic policies; health literacy programmes; health funding to remain ring-fenced so local authorities can reduce inequalities; stronger incentivisation of good practice in the food industry; and more investment to address socio-economic factors to help to narrow regional life expectancy disparities in the UK.

Case Studies

The NHS Health Check Learning Network have collated a [*series of case studies*](#) in order to showcase and share some of the achievements, positive outcomes and learning points from existing vascular risk assessment and management programmes, to assist other areas with the successful delivery and implementation of the NHS Health Check.

Further advice

For further information about evidence based methods, evaluation and research, please visit the Wirral Council Performance & Intelligence team evidence fact sheets on the JSNA website:

<http://info.wirral.nhs.uk/intelligencehub/howtofact-sheetsonevidence&research.html>.

These fact sheets will be particularly useful if you are considering carrying out an evaluation of your current practice.

For more information on Wirral JSNA please contact John Highton at johnhighton@wirral.gov.uk or 0151 666 5151.