

Component 2: Report on a Health Issue

Coronary Heart Disease

Module: Introduction to Public Health (LCHS4008)

Student Name: Oladimeji Majolagbe

Student ID: 2533086

Introduction

Coronary heart disease (CHD), also known as ischaemic heart disease, occurs when the coronary arteries that supply blood to the heart become narrowed or blocked, usually because fatty deposits build up within the artery walls. This process, known as atherosclerosis, reduces the amount of oxygen reaching the heart muscle. It can cause angina and, if an artery becomes completely blocked, a heart attack. Common symptoms include chest pain or pressure, pain spreading to the arms, neck or jaw, breathlessness and tiredness. During a heart attack, symptoms can also include sweating, nausea and severe chest discomfort. Cardiovascular diseases caused an estimated 19.8 million deaths worldwide in 2022, representing around 32% of all global deaths, with heart attacks and strokes accounting for approximately 85% of these deaths (WHO, 2025). CHD is also a major health problem in the UK, where around 2.3 million people are living with the condition and approximately 66,000 people die from it each year, equivalent to about 180 deaths every day (BHF, 2025).

1. Approaches Used to Measure and Monitor CHD

Monitoring CHD requires information about mortality, new cases, existing disease and levels of cardiovascular risk. Mortality data are an important method because they show how many people die from the condition and allow trends to be monitored over time. In England and Wales, the Office for National Statistics (ONS) publishes data on deaths caused by ischaemic heart disease, broken down by factors including age and location (ONS, 2025). The British Heart Foundation also brings together national, regional and local statistics on cardiovascular mortality, morbidity, treatment and risk factors through its annual statistics compendium (BHF, 2025).

Prevalence and incidence data provide a different perspective. Prevalence shows how many people are living with diagnosed CHD, while incidence concerns new cases occurring over a specified period. GP records are useful because primary-care services routinely record diagnoses, risk factors, treatment and monitoring. CVDPREVENT is the national audit of cardiovascular disease prevention in primary care in England. It uses information extracted

from GP records to identify variation in diagnosis and management and to support improvements in cardiovascular prevention and health inequalities (HQIP, 2025).

Hospital admission data are also valuable because serious CHD complications, such as heart attacks, often require urgent hospital treatment. Clinical audits can additionally assess whether patients receive recommended care and whether outcomes improve over time. Using several measures is important because mortality figures alone do not show the full burden of CHD. Many people survive a heart attack or live for years with chronic disease, potentially experiencing disability, repeated hospital admissions or a reduced quality of life. Combining mortality, prevalence, incidence and hospital data therefore provides a more complete picture of the condition and helps services plan appropriate care.

At an individual level, QRISK3 can be used to estimate a person's 10-year risk of developing cardiovascular disease. It considers factors such as age, smoking, blood pressure and cholesterol. NICE recommends offering atorvastatin 20 mg for primary prevention to adults with a 10-year QRISK3 risk of 10% or more, while treatment may also be considered below this threshold in appropriate circumstances (NICE, 2023). These methods show that CHD monitoring takes place at both population and individual levels.

2. How CHD Is Controlled

CHD is controlled through prevention, early detection, lifestyle modification, medication and long-term rehabilitation. Primary prevention aims to reduce the likelihood of disease developing in the first place. Important modifiable risk factors include smoking, physical inactivity, unhealthy diet, obesity, high blood pressure and high cholesterol. Smoking cessation, regular physical activity, maintaining a healthy weight and following a balanced diet are therefore important components of cardiovascular disease prevention (WHO, 2025).

Medication can also reduce cardiovascular risk. Statins lower cholesterol levels and are widely used for primary and secondary prevention. People with established CHD may require additional medication, such as antiplatelet or blood-pressure treatment, depending on their individual clinical needs. Regular monitoring allows healthcare professionals to review effectiveness, manage side effects and identify changes in cardiovascular risk.

Secondary prevention is particularly important after a heart attack or diagnosis of established CHD. Cardiac rehabilitation combines exercise, education, risk-factor management and support for healthy behaviour. NHS England recommends a person-centred and multidisciplinary approach that addresses physical, psychological, medical and behavioural needs (NHS England, 2024).

CHD can also be controlled through population-level public-health measures. Smoking-control policies, promotion of physical activity and efforts to improve dietary habits can reduce cardiovascular risk across whole communities. This is important because health outcomes are influenced not only by individual behaviour but also by wider social and environmental conditions.

3. Consequences of CHD on People in the Community

CHD can have significant physical consequences. Angina may restrict a person's ability to exercise and carry out everyday activities, while a heart attack can cause permanent damage to the heart. More severe disease may contribute to heart failure, disability or premature death. People with CHD or who have experienced a heart attack are also twice as likely to have a stroke, demonstrating that cardiovascular complications can extend beyond the heart itself (BHF, 2025).

There may also be psychological consequences. Following a diagnosis or heart attack, individuals may experience anxiety, low mood or fear about future health. These difficulties can affect confidence and willingness to return to normal activities. Psychological assessment and support are therefore important components of effective cardiac rehabilitation.

CHD can affect employment and family life as well. Some individuals may require time away from work, reduced hours or changes to their job following a cardiac event. Families can experience emotional and financial pressure when a relative is unable to work or requires continuing care. The condition can therefore affect not only the patient but also those who provide practical and emotional support. Where illness becomes long term, repeated appointments, medication and hospital care may also increase costs for individuals and healthcare services.

The burden of cardiovascular disease is not evenly distributed across the UK. Research involving more than 22 million people identified differences in cardiovascular disease patterns according to factors including age, sex and socioeconomic circumstances (Conrad et al., 2024). BHF statistics also demonstrate considerable variation between areas. For example, its England factsheet reports that premature CHD mortality in Blackpool was around four times higher than in Fareham, Hampshire, during 2021–23 (BHF, 2026). Differences in smoking, physical activity, diet, living conditions and access to healthcare can therefore contribute to unequal outcomes between communities.

4. Health and Social Care Support Services Needed

People living with CHD require coordinated support from health and social care professionals. General practitioners have a central role in long-term monitoring, medication review, blood-

pressure and cholesterol checks, lifestyle advice and referrals to specialist services. Primary care can also identify people at higher risk and provide or arrange NHS Health Checks.

Cardiac rehabilitation is an important service following a heart attack or another significant cardiac event. Rehabilitation should address exercise, education, diet, medication, cardiovascular risk factors and psychological wellbeing. It is delivered through multidisciplinary teams, which may include nurses, physiotherapists, dietitians and other healthcare professionals according to the patient's needs (NHS England, 2024).

Community services also contribute to prevention and long-term management. Smoking-cessation services can help people stop using tobacco, while weight-management and physical-activity programmes can address important modifiable risk factors. These services are particularly valuable when they are accessible to disadvantaged communities that may experience greater cardiovascular risk.

Some people develop long-term disability or reduced mobility and may therefore require social-care support. Occupational therapists can help individuals adapt to changes in everyday functioning, while home-care services may assist people who cannot live independently. Family carers may also need information, practical guidance and emotional support.

Voluntary organisations such as the British Heart Foundation can provide information and support to patients and their families. Effective CHD care therefore depends on cooperation between primary care, hospital services, cardiac rehabilitation, community services, social care and voluntary organisations.

Conclusion

Coronary heart disease is a major cause of illness and death worldwide and remains a significant public-health problem in the UK. It can be monitored through mortality statistics, GP records, national audits, hospital data and cardiovascular risk-assessment tools such as QRISK3. Controlling CHD requires a combination of healthy lifestyle changes, medication, early identification and secondary prevention, while cardiac rehabilitation provides important long-term physical and psychological support. The condition can affect physical health, emotional wellbeing, employment and family life, and its burden is not equally distributed between communities. Reducing this burden therefore requires coordinated health and social care, effective prevention and early intervention, particularly in communities experiencing greater cardiovascular risk.

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