

MODULE CODE: LCHS 4008

MODULE: INTRODUCTION TO PUBLIC HEALTH

ASSESSMENT 2

**CORONARY HEART DISEASE: MEASUREMENT,
MONITORING, CONTROL, COMMUNITY IMPACT, AND
HEALTH & SOCIAL CARE SUPPORT**

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18.07.2026

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1. Introduction

Coronary heart disease (CHD) is a condition of the heart which develops when the coronary artery narrows or obstructs with fatty materials and thereby limits the supply of blood with oxygen to the heart muscles. This is referred to as atherosclerosis and can lead to symptoms such as chest pains (angina), shortness of breath, fatigue, palpitations and might even cause heart attack in severe cases. CHD is the most and one of the most prevalent causes of morbidity and mortality globally and impacts millions of individuals within the United Kingdom which poses a significant strain on healthcare services and the population. Being one of the leading challenges in health, it is necessary to prevent it, identify it at the initial stage, and contain it in the long term (de Oliveira Laterza Ribeiro et al., 2023). This report discusses how CHD is measured, monitored, and controlled and how it has an effect on communities and what health and social care assistance is available.

2. Main Body

2.1 Different Approaches Used to Measure and Monitor Coronary Heart Disease

Disease surveillance is the process of gathering, analysing, interpreting and reporting health data on a continuous basis with the aim of detecting disease trends and assisting in the decision-making process by the people's health. The importance of monitoring coronary heart disease (CHD) is that it allows medical services to identify populations at risk, track rates of various diseases, measure the success of treatment as well as make valuable plans to prevent them (El-Sofany et al., 2024). The frequency, distribution and the general burden of CHD in the population are measured with the use of epidemiological measures like incidence, prevalence, mortality and morbidity.

The CHD in the United Kingdom is under surveillance using the NHS data collection systems, GP electronic health records, Hospital Episode Statistics (HES), and Quality and Outcomes Framework (QOF) to aid the surveillance of cardiovascular risk factors and their management in patients. Clinical monitoring is also important in the determination of disease progression (Hasbani et al., 2022). They include measurement of blood pressure, cholesterol, blood glucose levels, and body mass index, and some of the diagnostic tests (ECG, echocardiogram, exercise stress test, coronary angiography, CT coronary angiography) to identify the damage to the heart and coronary artery disease (Yang et al., 2023). Population monitoring, such as national health survey, cardiovascular risk assessment instruments, such as QRISK, which have the power to forecast an individual in their disposition to cardiovascular disease in the future and can be used to intervene earlier

to alleviate complications and improve the long-term health outcomes, help support it as well.

2.2 How Coronary Heart Disease is Controlled

Coronary heart disease is a disease that has to be controlled by prevention and early detection, medical treatment as well as long-term management. Primary prevention entails some efforts whose aim is to restrict the reality of cardiovascular risk factors. People are advised to eat a healthy diet with high amounts of fruit, vegetables and whole grains and low amounts of saturated fat, sodium and sugar (Hassan et al., 2022). Physical activity, smoking cessation, normal body weight, low level of alcohol intake and low levels of stress mitigates the risk of having coronary heart disease.

The secondary prevention aims at preventing the onset of the disease among the already diagnosed and especially at-risk individuals who have risk factors of the disease related to cardiovascular disease. Early and regular health checks, assessing and managing such blood-related conditions as high blood pressure, diabetes, cholesterol, and others will reduce the risk of heart attack and others. Follow-up visits are conducted regularly to monitor the symptoms and revise the treatment, when necessary.

Medical management is the chief determinant in the control of CHD. Statins lower the level of cholesterol and decelerate the rate of plaque accumulation in the arteries, and antiplatelet drugs mitigate the probability of clotting of blood (Luengo-Fernandez et al., 2023). Betablockers decrease workload of the heart by lowering the heart rate and blood pressure, ACE blocks enhance heart performance and nitrates reduce angina by increasing the supply of blood to the heart muscle.

Other patients can be solved by subscribing to interventional or surgical operations only when sub-stress cannot do it with the help of medication. Percutaneous coronary intervention, or angioplasty, expands constricted arteries with balloons and stents to re-establish blood circulation (Volpe and Gallo, 2023). Bypass graft surgery on the coronary artery opens up other pathways around clogged arteries to enhance blood flow and alleviate symptoms. NHS Health Check programmes, national awareness campaigns, NICE evidence-based guidance and community-based health promotions are the ways in which public health supports clinical care to promote healthier lifestyles and prevent preventable cardiovascular disease.

2.3 Consequences of Coronary Heart Disease on People in the Community

Coronary heart disease has very broad effects which not only impact individuals but also families, communities and health systems. On the physical side, the patients would be less

mobile, experience chronic fatigue, reduced exercise capacity, disability, and increased recurrent heart attacks or heart failure (Umer et al., 2022). Such restrictions have tendencies of restricting independent capabilities and interfering with day-to-day operations and therefore require the management of the disease in the long term.

A considerable psychological impact can also be caused by CHD. After diagnosis or treatment many people have anxiety about cardiac events in the future. Depression may be experienced as a result of decreased lifestyle, physical functioning or low recovery (Netala et al., 2024). Fear of fear of another heart attack is likely to diminish confidence thereby limiting involvement in work, leisure and socialisation.

Coronary heart disease socially can also lead to isolation as persons become less capable of participating in family occasions, community activities or working. Family members fulfil a care giving role that may cause a strain in relationships, or patients that are emotionally distressing may cause a strain in the relationships. Additional decline in engagement in social life could further deteriorate mental health and lower quality of life.

CHD may cause loss of income through sickness absence, low productivity, early retirement and high medical costs due to the economic strain. Financial issues related to prolonged care and the changes in lifestyle of families can also be experienced. On a community level, coronary heart disease imposes significant burden on health care in terms of more hospitalisation, out service visits, emergency services, rehabilitation services, and long-term medication needs (Regitz-Zagrosek and Gebhard, 2023). The community-based services face increasing pressure on rehabilitation, chronic disease management and home-based services, whilst informal care givers frequently offer significant unpaid care which can also impact on their own welfare and employment.

2.4 Health and Social Care Support Services Required

People with coronary heart disease need a coordinated effort on the part of various health and social care providers to provide care during diagnosis, treatment, rehabilitation and long-term care. Primary healthcare (General Practitioners and practice nurses) is particularly necessary in risk factor identification of cardiovascular diseases, long-term health monitoring, prescribing drug therapy and lifestyles advice. Under frequent reviews, complications are easily identified early, and effective disease management is facilitated.

Secondary healthcare services contain cardiologists, cardiac specialist nurses and hospital cardiac units which offer specialist evaluation, diagnostic studies, emergency treatment, and follow-up services. These practitioners attend to complicated instances and accompany patients with the right intervention such as surgeries where necessary.

Rehabilitation services are critical towards enhancing recovery after cardiac events. Cardiac rehabilitation programmes incorporate monitored physical activity, education, lifestyle advice and psychological assistance to improve physical fitness and reduce the likelihood of future cardiovascular issues (Shahjehan et al., 2024). Exercise experts and physiotherapists assist patients to stay secure through escalating physical activity and rebuild trust and practical capacity.

There is also a series of allied health professionals that assist in total care (Timmis et al., 2024). Dietitians offer advice on nutrition to lower cardiovascular risk, occupational therapists assist patients to be independent in their daily lives, pharmacists provide assistance with their pharmaceutical aspects and compliance, and psychologists discuss anxiety, depression, emotional adjustment to long-term disease.

Community nursing services fulfil constant monitoring and support of people living with CHD, as well as social workers assessing the practical needs, designing care packages, and linking individuals with fellow community resources. Patients with considerable disability or loss of independence might need home care and residential care (Sumwiza et al., 2023). There is also peer support, valuable information, and lifestyle advice that voluntary organisations like the British Heart Foundation, local heart support groups, and community health education programmes provide. Efficient multidisciplinary team work ensures that the professionals engage in coordinated communication that ensures tailored care that has positive health outcomes, increased quality of life and the on-going management of the disease in the community.

3. Conclusion

Coronary heart disease is considered one of the most rampant cardiac disorders afflicting the world and the United Kingdom. Through effective disease surveillance, epidemiological surveillance and monitoring, clinical and population risk assessment, healthcare workers identify at-risk individuals and determine the treatment outcome (Timmermans et al., 2022). Prevention measures, proper medication, surgery, and health programs in the population will all help in the management of the disease and lessening the complications. Although these measures are taken, CHD remains relevant and has been associated with physical health, psychological wellbeing, social participation and productivity at an economic cost in addition to posing significant demands to healthcare provisions. Multi-disciplinary teams are needed to provide coordinated health and social management in the process of assisting people during diagnosis, treatment, rehabilitation and long-term management to enhance the quality of life and eventually alleviate the overall burden of coronary heart disease.

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