Reducing premature mortality from non-communicable diseases


Abstract

Cardiovascular disease and other non-communicable diseases, such as diabetes, cancer and chronic respiratory disease, are a leading cause of premature death and disability worldwide. This article emphasises the importance of prevention in reducing death and disability from preventable non-communicable diseases, especially for individuals with established risk factors for these diseases. It reviews global initiatives to reduce mortality rates from these diseases, identifies opportunities for nurses and other healthcare professionals to discuss risk factors with patients, and provides practical suggestions on how to provide advice on healthy lifestyles and enable behaviour change.

Keywords
cardiovascular disease, disease prevention, Florence Nightingale Foundation, health promotion, non-communicable diseases, premature mortality

THE SAYING ‘an ounce of prevention is worth a pound of cure’ is attributed to Benjamin Franklin in 1735 (Independence Hall Association 2017), and is considered relevant to modern healthcare and health promotion. This article discusses the importance of preventing cardiovascular disease and other non-communicable diseases, such as diabetes, cancer and chronic respiratory disease, in reducing premature death and disability worldwide.

Cardiovascular disease is the leading cause of premature death and disability in the UK, despite a 60% reduction in mortality from cardiovascular disease since the 1970s (Guzman-Castillo et al 2015). Cardiovascular disease accounts for almost half of the 36 million annual deaths globally from non-communicable diseases (Smith et al 2013). Ischaemic heart disease was the leading cause of years of life lost in England in 2013, by disease type (Newton et al 2015). Four other non-communicable diseases were included in the top six causes of years of life lost in England in 2013, including: cerebrovascular diseases, Alzheimer’s disease, lung cancer and chronic obstructive pulmonary disease (Newton et al 2015). Premature deaths from cardiovascular disease are potentially preventable by maintaining a healthy diet, avoiding obesity, being physically active, and not smoking (Akesson et al 2014, O’Flaherty et al 2016).

Reducing risk factors for cardiovascular disease

Smoke-free policies and the reduction of high lipid levels and raised blood pressure have significantly contributed to reducing cardiovascular disease mortality. Analysis of data from six countries, including the UK, indicated that the introduction of smoke-free legislation reduced the occurrence of acute myocardial infarction by 13% on average (Lin et al 2013). Approximately two thirds of the decrease in deaths from coronary heart disease is attributable to the decline in smoking prevalence, and reductions in blood pressure and...
cholesterol (Guzman-Castillo et al 2015). However, other risk factors for cardiovascular disease, for example obesity and diabetes, are increasing globally (Sacco et al 2016).

Health promotion and the prevention of non-communicable diseases may involve various aspects of society, including environmental protection, agriculture, transportation, industry, health policy, and healthcare organisations (Piepoli et al 2016). Population approaches to reduce cardiovascular risk include: taxes on alcohol and sugary drinks; legislation to limit marketing of tobacco and unhealthy foods, especially to children; public smoking bans; regulations to prevent air pollution; town planning that encourages walking; and incentives for healthy behaviours (Piepoli et al 2016, Sacco et al 2016). Piepoli et al (2016) asserted that reducing the population risk by 1% would prevent 25,000 cardiovascular disease cases and save €40 million per year in one European country.

**National and international campaigns**

The World Health Organization (WHO) (2013) made a commitment to reduce the overall mortality from four non-communicable diseases: cardiovascular disease including stroke, diabetes, cancer and chronic respiratory disease, by 25% by 2025. Central principles of the WHO (2013) campaign are a life-course approach to prevention, and the empowerment of people and communities. Targets set by the WHO (2013) included:

» A 30% relative reduction in the prevalence of current tobacco use in people aged ≥15 years.

» A 30% relative reduction in the mean population intake of salt or sodium.

» A 25% relative reduction in the prevalence of raised blood pressure, or contain the prevalence of raised blood pressure, according to national circumstances.

» A 10% relative reduction in the prevalence of insufficient physical activity.

In line with the WHO (2013) campaign, the World Heart Federation (2017) launched its ‘25 by 25’ campaign in 2012, which aimed to reduce premature mortality from cardiovascular disease by 25% by 2025.

**Opportunities for health promotion**

Nurses and other healthcare professionals may spend considerable time with patients, possess skills in education, counselling and support, and are viewed as respected professionals (Berra et al 2011). Therefore, they are well placed to lead and support a life-course approach to reducing premature mortality from cardiovascular disease and other non-communicable diseases. Many patient encounters provide an opportunity to discuss healthy lifestyle behaviours, for example emphasising the importance of smoking cessation, or of making changes to diet, physical activity and weight.

Making Every Contact Count (Health Education England 2017) is a behaviour change approach that aims to use the plethora of everyday interactions between healthcare professionals and patients to encourage changes in behaviour that have a positive effect on the health and well-being of individuals, communities and populations. The Making Every Contact Count website (www.makingeverycontactcount.co.uk) provides resources and information to enable healthcare professionals to provide consistent and concise healthy lifestyle information and to enable individuals to engage in conversations about their health.

Brief behaviour change interventions may be beneficial, particularly if advice is repeated over time. Subsequent patient encounters can provide the opportunity to reinforce messages, and provide encouragement for any changes achieved. Improvements in managing risk factors can be continued, and reinforced in interactions with other healthcare providers (Lamming et al 2017).

**Advice on healthy lifestyles**

Specific advice is more useful than general advice when talking to patients...
about lifestyle changes, for example exploring with them how they can incorporate changes into their daily lives (Marteau et al 2012). Straightforward changes, such as taking the stairs rather than using a lift, finding ways to include walking in their daily routine, and eating more fruit and vegetables, can be initial steps in adopting healthier lifestyles and preventing cardiovascular disease and diabetes (Piepoli et al 2016, World Heart Federation 2017).

An American Heart Association scientific advisory report emphasised the detrimental effects of sedentary behaviour, defined as sitting or reclining activities with an energy expenditure of less than 1.5 metabolic equivalents (Young et al 2016). Although further research is required, the evidence available suggests that increased sedentary behaviour is associated with an increased risk of cardiovascular disease and diabetes (Ekelund et al 2016, Young et al 2016). Therefore, individuals should be advised to ‘sit less and do more’.

Individuals who are at increased risk of cardiovascular disease because of their family history, or as a result of established risk factors, such as smoking or hypertension, may require additional support to change their behaviours and manage these risk factors. Nurse-led and multi-professional cardiovascular disease prevention programmes have been effective in decreasing risk and managing risk factors in various practice settings, including primary care, community services and hospitals (Wood et al 2008, Voogdt-Pruis et al 2010, Allen et al 2011, Jorstad et al 2013). Healthcare professionals should empathise with patients in relation to the challenges of maintaining a healthy lifestyle, and provide positive examples of individuals who have achieved lifestyle changes.

### Role of healthcare professionals and organisations

Healthcare organisations can reduce the cardiovascular disease risk for their staff by emphasising the importance of a healthy lifestyle and providing an environment that supports this. For example, healthcare organisations with restaurants and shops should offer healthy food options rather than fast food only, and employers could provide space for exercise classes, safe storage for bicycles, incentives for walking groups and taking the stairs, and information and risk assessment to their employees.

Nurses can be socially and politically active, using their knowledge of relevant research evidence to: advise governmental agencies, local councils and planning bodies; inform public debate; and promote planning, policies and regulations that reduce unhealthy behaviours and support healthier lifestyles. The Royal College of Nursing forums (www.rcn.org.uk/get-involved/forums) cover a variety of topics, including public health. Membership of these forums can provide nurses with an opportunity to be part of a larger group, providing expertise and public discourse on issues related to preventing illness and supporting healthy lifestyles.

### Conclusion

Cardiovascular disease and other non-communicable diseases, such as diabetes, cancer and chronic respiratory disease, are a leading cause of premature death and disability worldwide. These premature deaths are potentially preventable. The WHO (2013) has made a commitment to reduce the overall mortality from cardiovascular disease, diabetes, cancer and chronic respiratory disease by 25% by 2025 (WHO 2013). The WHO (2013) targets include: reductions in tobacco use; reductions in salt or sodium intake; reductions in the prevalence of raised blood pressure; and increased physical activity.

Since nurses and other healthcare professionals often spend considerable time with patients, they are well placed to lead and support a life-course approach to reducing premature mortality from cardiovascular disease and other non-communicable diseases, actively supporting the WHO (2013) commitment and the Health Education England (2017) initiative of Making Every Contact Count.

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References


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If you would like to contribute to this series of articles please contact: tanya.fernandes@rcni.com

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