Norway has been successful at reducing the mortality due to cardiovascular diseases (CVD)

The mortality from CVD has decreased over the past 50 years with a slightly faster pace than the OECD average, reaching 233 per 100,000 population in 2011, 22% lower than the OECD average of 299 (Figure 1). Potential years of life lost, a commonly used measure of premature mortality, at 334 per 100,000 population for diseases of the circulatory system in 2011, is 43% lower than the average of 581 (by using the age limit of 70), suggesting that CVD-related deaths occur later in life than in many other OECD countries. The reported prevalence of diabetes is also low at 4.8%, compared to an OECD average of 6.9%.

Figure 1. Mortality rates for cardiovascular diseases and all other causes of death in Norway and OECD countries

Source: OECD Health Statistics.

The population in Norway generally has a healthy lifestyle but more can be done

Figure 2 shows that the rate of smoking, one of the risk factors of CVD, is much lower than the OECD average. Norway has reduced the smoking rate at a faster pace than many other OECD countries in recent years, reaching 16.0% for adult smoking (below the OECD average of 20.9%) and 7.0% for youth smoking rate (the lowest in the OECD).

However, some risk factors are prevalent and increasing in Norway. The prevalence of overweight is 35.0%, slightly higher than the OECD average of 34.6%. The reported prevalence of high cholesterol level and high blood pressure, at 21.2% and 28.0%, is higher than the OECD average of 18.0% and 25.6%, respectively. Although the prevalence of obesity is 10.0%, lower than the OECD average of 18.0%, it is increasing while some OECD countries have managed to contain the increase in recent years. Spending on prevention is 2.5% of the...
current health expenditure, lower than the OECD average of 2.9% and more could be done to promote healthy lifestyles.

**Figure 2. Prevention and healthy lifestyle related to CVD and diabetes in Norway, 2011 (or nearest year), OECD average = 100**

![Bar chart showing prevention and healthy lifestyle indicators](image)

Note: a bar in blue refers to an indicator in which an evaluation needs to be done together with other indicators, a bar in green refers to the value better than the OECD average, and a bar in orange refers to the value worse than the OECD average.

*Source: OECD Health Statistics.*

**Primary care is generally good**

Access to primary care is generally good in Norway (Figure 3). Spending on ambulatory care in 2010 is 1 009 USD PPP on per capita basis, much higher than the OECD average of 691 USD PPP in 2011, but the out-of-pocket payment (OOP) in ambulatory care is much lower than the OECD average. However, out-of-pocket payment of prescribed drugs is 131 USD PPP per capita, almost twice as high as the OECD average of 69 USD PPP. But the number of defined daily doses (DDD) for antihypertensive medications and cholesterol lowering medications are about the OECD average, suggesting that the reliance on and access to pharmaceutical interventions are comparable to other OECD countries. The share of population with unmet care needs is 1.3%, much lower than the OECD average of 3.2%. The number of GPs is 1.0 per 1 000 population, about the OECD average.

As to the quality of primary care for CVD and diabetes, this appears good. Hospital admissions for chronic conditions such as diabetes and congestive heart failure can be avoided if high-quality primary care is provided. The rate of hospital admissions with congestive heart failure is 1.6 per 1 000 population in 2010, much lower than the OECD average of 2.4 in 2011, and 21.2 per 1 000 diabetics were admitted to hospitals, compared to an OECD average of 23.8.
Acute CVD care is good

Resources in acute care in relation to CVD and diabetes were not well known but recent data show access is good. There are 106 cardiologists per million population and 92 neurologists per million population in Norway, more than in many OECD countries. In 2013, 77% of all patients with acute ST-elevation myocardial infarction (STEMI) received acute percutaneous coronary intervention (PCI), above the target of European “Stent 4 Life” initiative at 70%, and 11% received in-hospital or pre-hospital thrombolytic treatment. Of the non-STEMI patients, 35% received PCI. In 2013, there were 47 coronary artery bypass graft operations (CABG) procedures per 100 000 population, compared to an OECD average of 42 in 2011 and PCI procedures were about 50% higher than the OECD average of 180 per 100 000 population. Data on hospital spending on CVD and diabetes are still not available for international comparisons.
The quality of acute care for CVD is good in Norway. Based on the patient-based data which allow monitoring patients in and out of hospitals within the health system, the 30-day case-fatality rates for patients with Acute Myocardial Infarction (AMI), Ischemic or Haemorrhagic stroke are all better than the OECD average (Figure 4) (8.2%, 8.8% and 24.3%, compared to 10.8%, 11.1% and 29.8%, respectively).

**Norway is making effort to promote healthy lifestyles and can further strengthen the health information system in primary care**

Norway has been increasing its efforts to promote healthy lifestyle. OECD analyses show that effective prevention strategies are multifaceted and comprehensive, including both population-wide measures and measures for high-risk individuals by using all available tools such as regulations, education, incentives, as well as health care programmes and services to work in unison and strengthen their effectiveness. Norway has implemented strategies to promote a healthier diet since the 1970s and it is intensifying its efforts to tackle risk factors of CVD and diabetes through the introduction of nutrition policies in recent years. These strategies have involved different stakeholders such as the food industry to reduce salt content in processed food and patient groups to build public awareness on healthy eating habits, contributing to a healthier diet to some extent. Norway also has taxes on soft drinks with added sugar or artificial sweetener and taxation on sugar and chocolate. Furthermore, a web portal has been developed to involve the public in taking control of their own health and their own care and it contains not only the information targeted to patients such as health care providers and access to care, but also information about healthy lifestyle such as advices on healthy food, ideas for increased physical activity (including everyday trips in user’s local neighbourhood), and tobacco-cessation.

Norway can further strengthen its health information infrastructure to promote high-quality care for CVD and diabetes in primary care. Norway has been taking actions to ensure more efficiency in the health information system and by the end of 2015, all citizens will have online access to a core medical record. In acute care, registration in the National Cardiovascular Disease Register has been mandatory for all hospitals since 2012, and the register contains data on diagnosis, disease severity, procedures and outcomes for AMI and stroke for quality monitoring and improvement. But more can be done in primary care. For example, Denmark has made better use of electronic patient records and shown notable improvements in primary care quality. The system includes data on diagnoses, procedures, prescribed drugs and laboratory results and automatically derives information that can be used to benchmark GP practice against other practices and to improve patient care as it enables the identification of patients treated sub-optimally.