Mortality due to coronary heart disease has declined substantially since the 1970s (see Indicator 1.4 "Mortality from heart disease and stroke"). This reduction can, in part, be attributed to better treatments, particularly in the acute phases of myocardial infarction (AMI). Care for AMI has changed dramatically in recent decades, with the introduction of coronary care units and treatments aimed at rapidly restoring coronary blood flow. Clinical practice guidelines, such as those developed by the European Society of Cardiology, provide clinicians with information on how to optimise treatments and studies have shown that greater compliance with guidelines improve health outcomes. However, some AMI patients do not receive recommended care, raising concerns over the quality of care in some countries.

A good indicator of acute care quality is the 30-day AMI case-fatality rate. This indicator measures the percentage of people who die within 30-days following admission to hospital for AMI. The measure reflects the processes of care, such as timely transport of patients and effective medical interventions. AMI case-fatality rates have been used for hospital benchmarking in several countries including Denmark and the United Kingdom (Kessler and Geppert, 2005; Cooper et al., 2011). The indicator is influenced by not only the quality of care provided in hospitals but also differences in hospital transfers, average length of stay and AMI severity.

Figure 4.3.1 shows the case-fatality rates within 30 days of admission for AMI. The panel on the left reports the in-hospital case-fatality rate when the death occurs in the same hospital as the initial AMI admission. The average age-standardised AMI case-fatality rate across the European Union was 7.8% in 2011 but rates vary widely between countries. The lowest age-standardised rates were in Denmark, Sweden and Norway (with rates at or below 4.5%) and the highest rate in Latvia (14.8%) and Hungary (13.9%). These cross-country differences relate to several factors including the quality of pre-hospital emergency medical services, the diagnosis and treatment patterns delivered to patients, although some of the variation between countries may be explained by differences in data definitions (see box on "Definitions and comparability"). Further, better hospital performance in cardiovascular disease has recently been linked to better quality governance systems for monitoring and benchmarking (OECD, forthcoming).

The right-hand-side panel of Figure 4.3.1 shows 30-day AMI case-fatality rates where fatalities are recorded regardless of where they occur. This is a more robust indicator because it records deaths more widely than the same-hospital indicator, but it requires linked-data which is not available in all countries. The average AMI case-fatality rate was 11.5% in 2011, ranging from 8.2% in Norway to 18.8% in Hungary. The degree of cross-country variation is considerably less compared to the same-hospital indicator. One potential reason for this is that patients may be more commonly transferred to other facilities in countries such as Denmark compared to Hungary.

Case-fatality rates for AMI have decreased over time, with almost all countries recording sizeable reductions between 2001 and 2011 (Figure 4.3.2). The AMI case-fatality rate for the 18 EU member states reporting data over this period fell by nearly 40% between 2001 and 2011. Between 2006 and 2011, the rate of decline was particularly striking in Denmark and the Slovak Republic, where case-fatality rates fell by more than 35%. These substantial improvements reflect better and more reliable processes of care, in particular with respect to rapid re-opening of the occluded arteries.

Definitions and comparability

In-hospital case-fatality rate following AMI is defined as the number of people who die within 30 days of being admitted (including same day admissions) to hospital with an AMI. Ideally, rates would be based on individual patients; however, not all countries have the ability to track patients in and out of hospitals, across hospitals or even within the same hospital because they do not currently use a unique patient identifier. In order to increase country coverage, this indicator is also presented based on individual hospital admissions and restricted to mortality within the same hospital, so differences in practices in discharging and transferring patients may influence the findings. In counting the number of AMI admissions, Belgium excludes transfers to other hospitals from the denominator, leading to some over-estimation.

Rates were age-sex standardised to the 2010 OECD population aged 45+ admitted to hospital for AMI. Standardised rates adjust for differences in age (45+ years) and sex and facilitate more meaningful international comparisons.

Data for Turkey only include public hospitals (excluding university and private hospitals).

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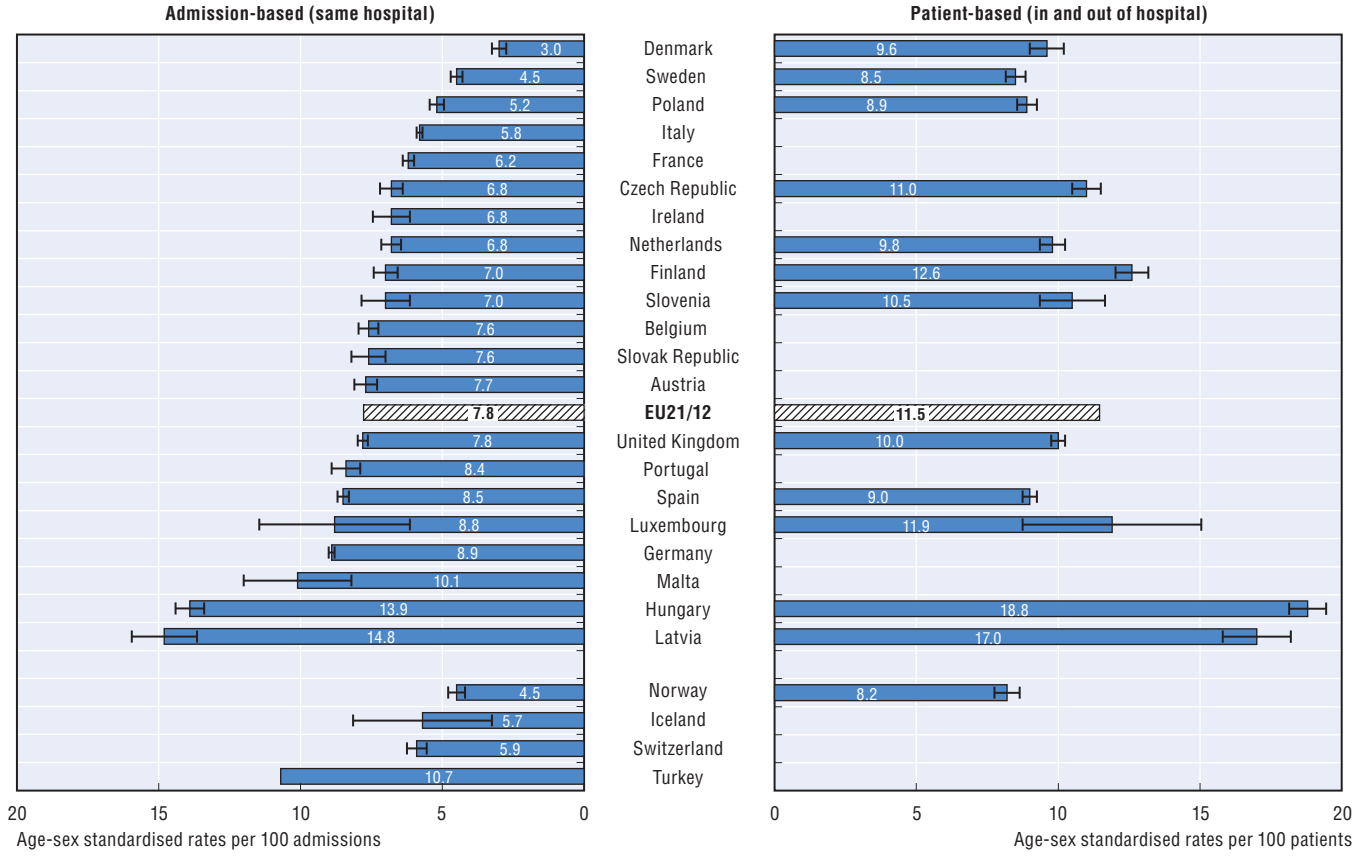
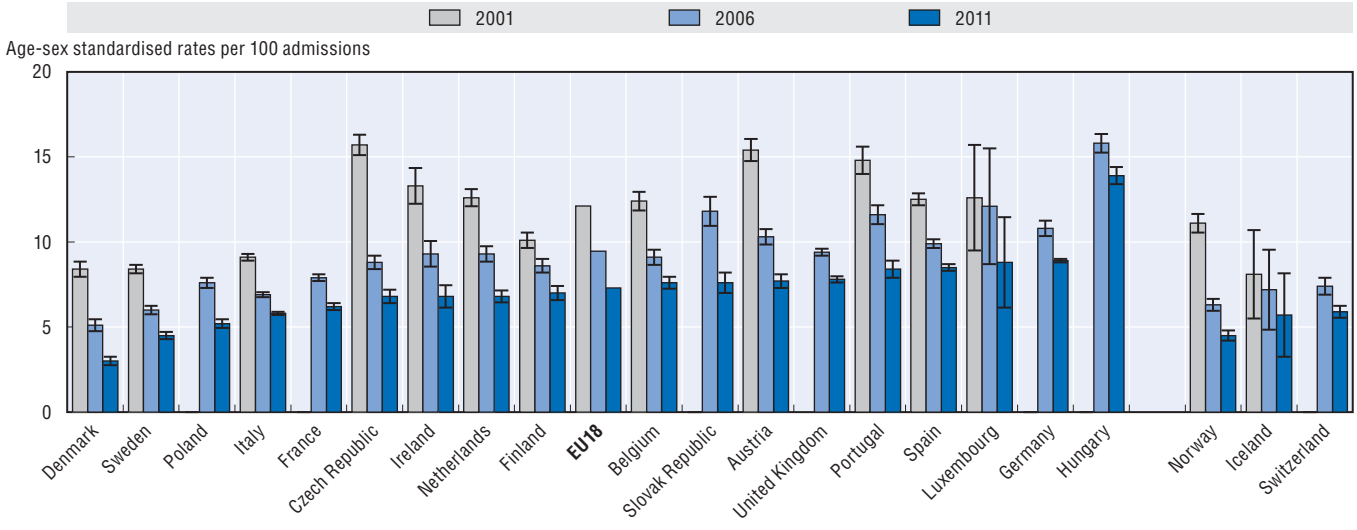
OECD (forthcoming), "Cardiovascular Disease and Diabetes: Policies for Better Health and Quality of Care", OECD Publishing, Paris.

4.3.1. Case-fatality within 30 days after admission for AMI in adults aged 45 and over, 2011 (or nearest year)



Note: 95% confidence intervals represented by H.
Source: OECD Health Statistics 2014, *http://dx.doi.org/10.1787/health-data-en.*

4.3.2. Reduction in admission-based case-fatality within 30 days after admission for AMI in adults aged 45 and over, 2001-11 (or nearest year)



Note: 95% confidence intervals represented by H.
Source: OECD Health Statistics 2014, *http://dx.doi.org/10.1787/health-data-en.*

StatLink http://dx.doi.org/10.1787/888933155687