4.9. Caesarean sections

Rates of caesarean delivery as a percentage of all live births have increased in all OECD countries in recent decades, although in a few countries this trend has reversed over the past few years. Reasons for the increase include reductions in the risk of caesarean delivery, malpractice liability concerns, scheduling convenience for both physicians and patients, and changes in the physician-patient relationship, among others. Nonetheless, caesarean delivery continues to result in increased maternal mortality, maternal and infant morbidity, and increased complications for subsequent deliveries (Minkoff and Chervenak, 2003; Bewley and Cockburn, 2002; Villar *et al.*, 2006). These concerns, combined with the greater financial cost (the average cost associated with a caesarean section is at least two times greater than a normal delivery in many OECD countries; Koechlin *et al.*, 2010), raise questions about the appropriateness of some caesarean delivery that may not be medically required.

In 2009, caesarean section rates were the lowest in the Netherlands (14% of all live births), and were relatively low also in many Nordic countries (Finland, Iceland, Norway and Sweden). In the Netherlands, home births are a common option for women with low-risk pregnancies, and 30% of all births occurred at home in 2004 (Euro-Peristat, 2008). Among OECD countries, caesarean section rates were highest in Turkey and Mexico (at over 40%), but the rates were even higher in some major non-member countries such as Brazil and China. The average rate across OECD countries was 26% (Figure 4.9.1).

Caesarean rates have increased rapidly over the past two decades in most OECD countries (Figure 4.9.2). The increase temporarily slowed during the 1990s in some OECD countries such as Canada and the United States, as a result of changes in obstetrical practice including trial of normal labor and delivery after a woman has had a previous caesarean to reduce the number of repeat caesareans (Lagrew and Adashek, 1998). But caesarean rates soon resumed their upward trend, due in part to reports of complications from trial of labour and continued changes in patient preferences (Sachs *et al.*, 1999). Other trends, such as increases in first births among older women and the rise in multiple births resulting from assisted reproduction, also contributed to the global rise in caesarean deliveries.

On average across OECD countries, caesarean rates increased from 14% of all births in 1990 to nearly 20% in 2000 and 26% in 2009. The growth rate since 2000 has been particularly rapid in Denmark, the Czech Republic, Poland and the Slovak Republic. Finland and Iceland are the only two OECD countries that have slightly reversed the trend of rising caesarean rates since 2000.

The continued rise in caesarean deliveries is only partly related to changes in medical indications. A study of caesarean delivery trends in the United States found that the proportion of "no indicated risk" caesareans rose from 3.7% of all births in 1996 to 5.5% in 2001 (Declercq *et al.*, 2005). In France, a 2008 study by the French Hospital Federation found higher caesarean rates in private for-profit facilities than in public facilities, even though the latter are designed to deal with more complicated pregnancies (FHF, 2008). A review of caesarean delivery practice in Latin American countries in the late 1990s found similarly higher caesarean rates in private hospitals (Belizan *et al.*, 1999).

While caesarean delivery is required in some circumstances, the benefits of caesarean *versus* vaginal delivery for normal uncomplicated deliveries continue to be debated. Professional associations of obstetricians and gynaecologists in countries such as Canada now encourage the promotion of normal childbirth without interventions such as caesarean sections (Society of Obstetricians and Gynaecologists of Canada *et al.*, 2008).

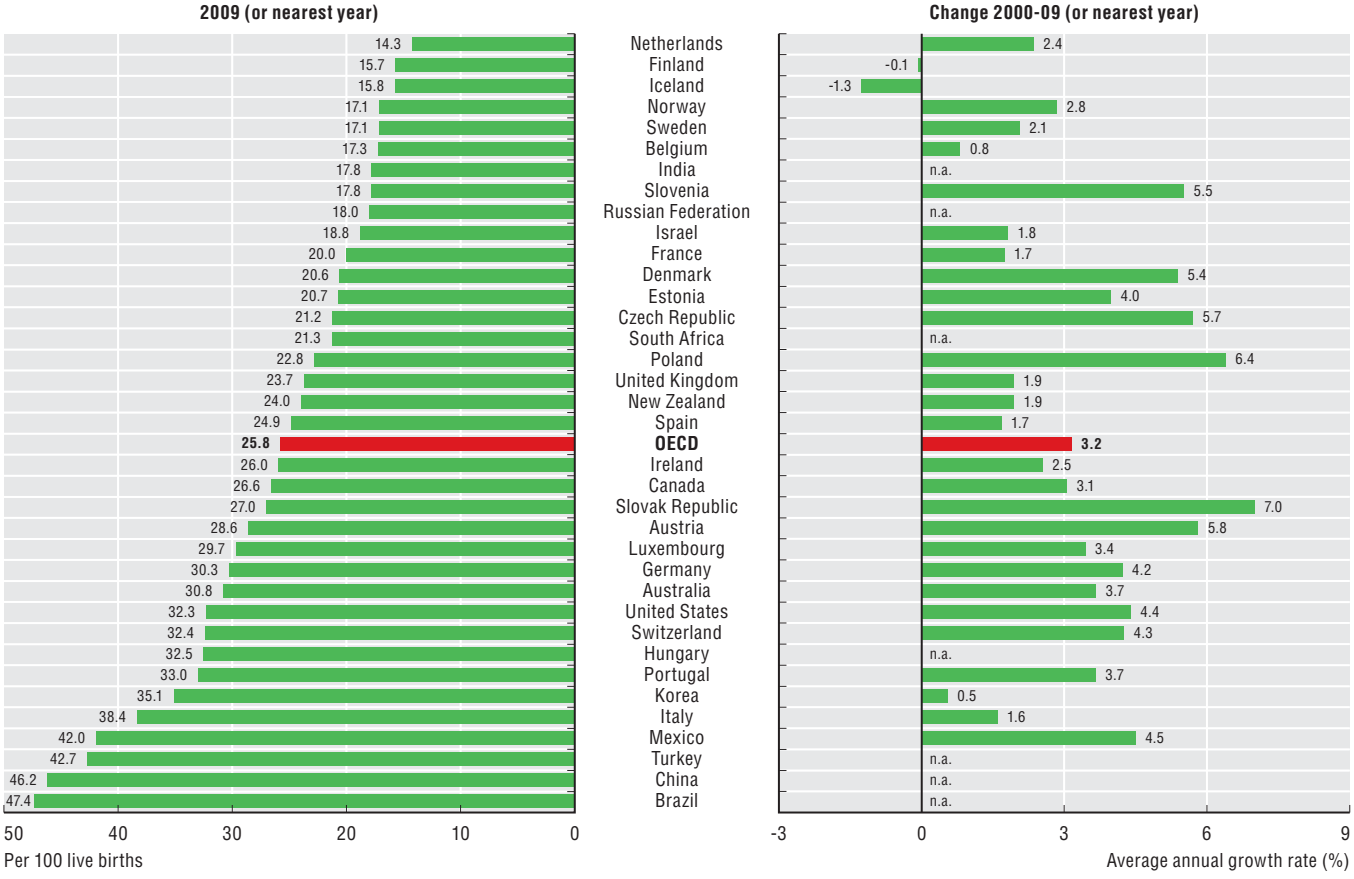
Definition and comparability

The caesarean section rate is the number of caesarean deliveries performed per 100 live births.

In Portugal, the denominator is limited to the number of live births which took place in National Health Service Hospitals on the mainland, resulting in an over-estimation of caesarean rates. In Mexico, the number of caesarean sections is estimated based on public hospital reports and data obtained from National Health Surveys. Estimation is required to correct for under-reporting of caesarean deliveries in private facilities. The combined number of caesarean deliveries is then divided by the total number of live births as estimated by the National Population Council.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

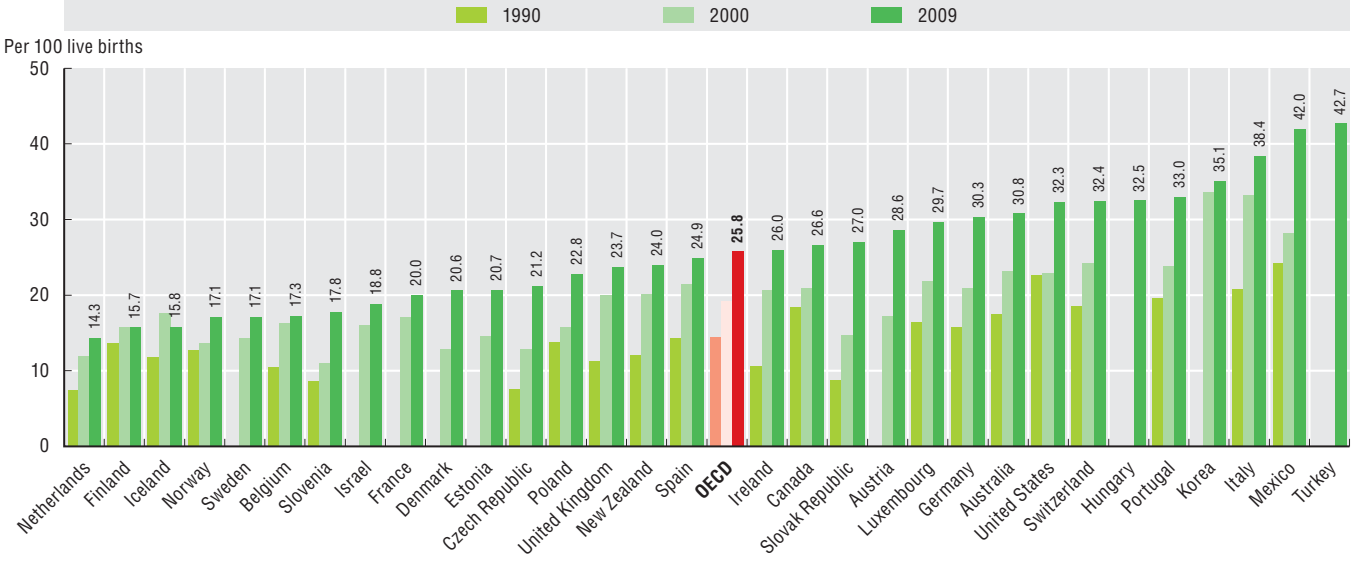
4.9.1 Caesarean sections per 100 live births, 2009 and change between 2000 and 2009



Source: OECD Health Data 2011; WHO (2008a).

StatLink http://dx.doi.org/10.1787/888932524887

4.9.2 Caesarean sections per 100 live births, 1990-2009 (or nearest year)



Source: OECD Health Data 2011.

StatLink http://dx.doi.org/10.1787/888932524906

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