

## 5.8. Screening, survival and mortality for cervical cancer

Cervical cancer is preventable and curable if detected early. The main cause of cervical cancer, which accounts for approximately 95% of all cases, is sexual exposure to the human papilloma virus, HPV (IARC, 1995; Franco *et al.*, 1999). Three indicators are presented to reflect variation in cervical cancer care across OECD countries: cervical cancer screening rates in women aged 20-69 years, five-year relative survival rates, and mortality rates.

The primary prevention of cervical cancer attributable to human papilloma virus types 16 and 18 by prophylactic vaccines has been shown to be highly effective and recommended in many countries worldwide (Shefer *et al.*, 2008; Koulova *et al.*, 2008). The secondary prevention of cervical cancer by the Pap-smear and HPV DNA testing increases the probability of detecting premalignant lesions which can be effectively treated. Population-based cancer screening programmes have been promoted by the Council of the European Union and the European Commission (European Union, 2003; European Commission, 2008c), but the periodicity and target groups vary among member states. There has been much discussion whether cervical cancer screening needs to be reevaluated and the cost-effectiveness investigated after introduction of HPV vaccination programmes (Goldhaber-Fiebert *et al.*, 2008; Wheeler *et al.*, 2009).

In 2009, screening rates for cervical cancer were the highest in the United States, at 86% (Figure 5.8.1). The United Kingdom, Norway and Sweden also achieved high coverage, with close to 80% of the target population. Screening rates were the lowest in the Slovak Republic and Hungary, although in Hungary a high proportion of screening activity takes place outside organised screening settings, resulting in underreporting. In several countries (Canada, Finland, Hungary, Iceland, Norway, the Slovak Republic, the United Kingdom and the United States), screening rates have declined at least slightly between 2000 and 2009.

Survival rates are one of the key measures of the effectiveness of health care systems and are commonly used to track progress in treating a disease over time. They reflect both how early the cancer was detected and the effectiveness of the treatment. Over the periods 1997-2002 and 2004-09, the five-year relative survival rates improved in most countries due to improved effectiveness of screening and treatment (Figure 5.8.2). In the most recent period (2004-09), survival rates continued to be the lowest in Ireland and the United Kingdom, while they were the highest in Norway and Korea.

Mortality rates reflect the effect of cancer care in past years and improved diagnosis of early-stage cancers with a better prognosis, as typically happens when screening is wide-

spread. The mortality rates for cervical cancer declined for most OECD countries between 2000 and 2009, apart from Luxembourg, Ireland, Israel, Portugal and Greece (Figure 5.8.3). Mexico has experienced a sharp decrease in cervical cancer mortality from 14.5 per 100 000 females to 9.6, although it still has the highest rate among OECD countries.

### Definition and comparability

Screening rates for cervical cancer reflect the proportion of women who are eligible for a screening test and actually receive the test. As policies regarding screening periodicity and target population differ across countries, the rates are based on each country's specific policy. An important consideration is that some countries ascertain screening based on surveys and other based on encounter data, which may influence the results. Survey-based results may be affected by recall bias. If a country has an organised screening programme, but women receive care outside the programme, rates may be underreported.

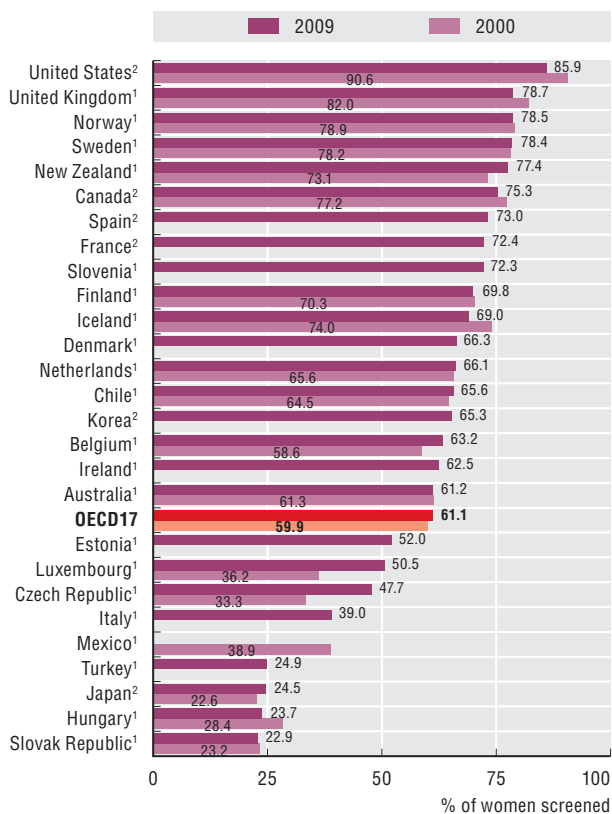
Relative cancer survival rates reflect the proportion of patients with a certain type of cancer who are still alive after a specified time period (commonly five years) compared to those still alive in absence of the disease. Relative survival rates capture the excess mortality that can be attributed to the diagnosis. For example, a relative survival rate of 80% does not mean that 80% of the cancer patients are still alive after five years, but that 80% of the patients that were expected to be alive after five years, given their age at diagnosis and sex, are in fact still alive. All the survival rates presented here have been age-standardised using the International Cancer Survival Standard (ICSS) population. The survival rates are not adjusted for tumour stage at diagnosis, hampering assessment of the relative impact of early detection and better treatment.

See Indicator 1.4 "Mortality from cancer" for definition, source and methodology underlying the cancer mortality rates.

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

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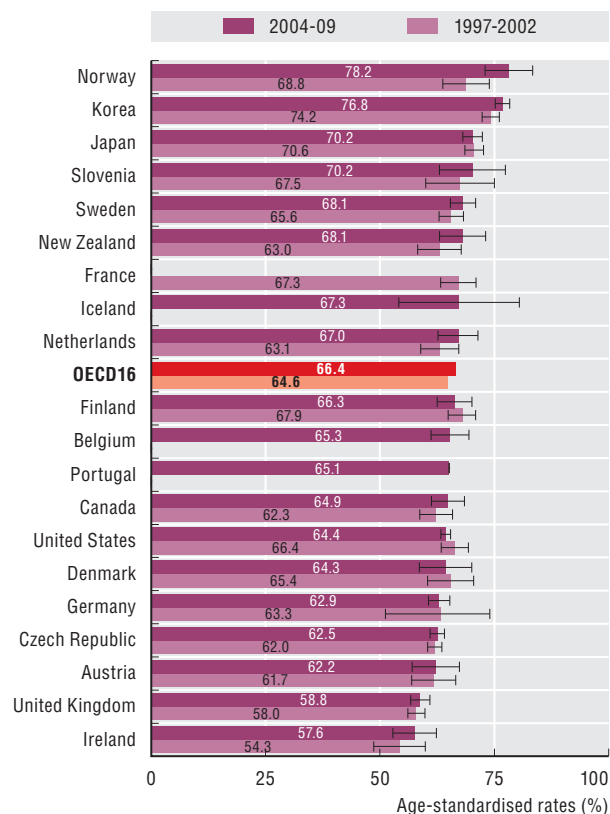
5.8.1 Cervical cancer screening, percentage women screened aged 20-69, 2000 to 2009 (or nearest year)



1. Programme. 2. Survey.  
Source: OECD Health Data 2011.

StatLink <http://dx.doi.org/10.1787/888932525362>

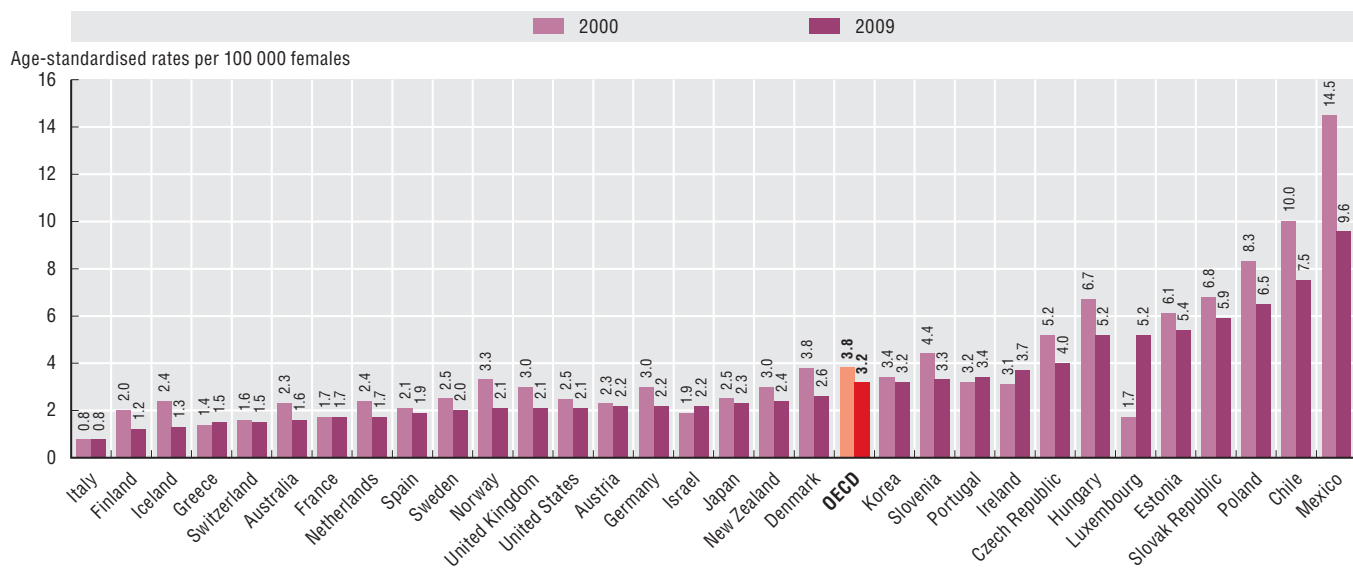
5.8.2 Cervical cancer five-year relative survival rate, 1997-2002 and 2004-09 (or nearest period)



Note: 95% confidence intervals represented by |—|.  
Source: OECD Health Data 2011.

StatLink <http://dx.doi.org/10.1787/888932525381>

5.8.3 Cervical cancer mortality, females, 2000 to 2009 (or nearest year)



Source: OECD Health Data 2011.

StatLink <http://dx.doi.org/10.1787/888932525400>



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