5.7. Screening, survival and mortality for cervical cancer

Cervical cancer is largely preventable. Screening by regular pelvic exam and pap smears can identify premalignant lesions, which can be effectively treated before the occurrence of the cancer. Regular screening also increases the probability of diagnosing early stages of the cancer and improving survival (Gatta *et al.*, 1998). The Council of the European Union and the European Commission promote population based cancer screening programmes among member States (European Union, 2003; European Commission, 2008c). OECD countries have instituted screening programmes, but the periodicity and target groups vary. In addition, the discovery that cervical cancer is caused by sexual transmission of certain forms of the Human Papilloma Virus has led to the development of promising cancer preventing vaccines (Harper *et al.*, 2006). The efficacy and safety of those vaccines is now well established, but debates about cost-effectiveness and the implications of vaccination programmes for teenagers for a sexually transmitted disease continue in a number of countries (Huang, 2008).

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 for cervical cancer.

Relative survival rates 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 provided. Mortality rates alone are not sufficient to draw timely inferences about quality of care, because current mortality rates reflect the effect of cancer care in past years and changes in incidence. Survival rates have been used to compare European countries in the EUROCARE study, in comparisons between European countries and the United States (Gatta *et al.*, 2000), and in national reporting activities in many countries.

Screening rates vary widely across OECD countries with the United States and the United Kingdom achieving coverage of around 80% of the target population (Figure 5.7.1). Some countries with very low screening rates, like Japan and Hungary, have no uniform national screening programme; the low rates reflect local programmes or opportunistic screening. The data indicates that screening rates in several countries slightly declined between 2000 and 2006.

Nearly all countries recorded five-year relative survival rates above 60% for the period 2002-07. The rates ranged from 76.5% in Korea to 50.1% in Poland (Figure 5.7.2). Over the periods 1997-2002 and 2002-07, the five-year relative rates improved in most countries, although in most instances the increase is not statistically significant.

Figure 5.7.3 shows that mortality rates for cervical cancer declined for most OECD countries between 1995 and 2005, with larger improvements for many countries with initially higher rates, such as Mexico and several central and eastern European countries.

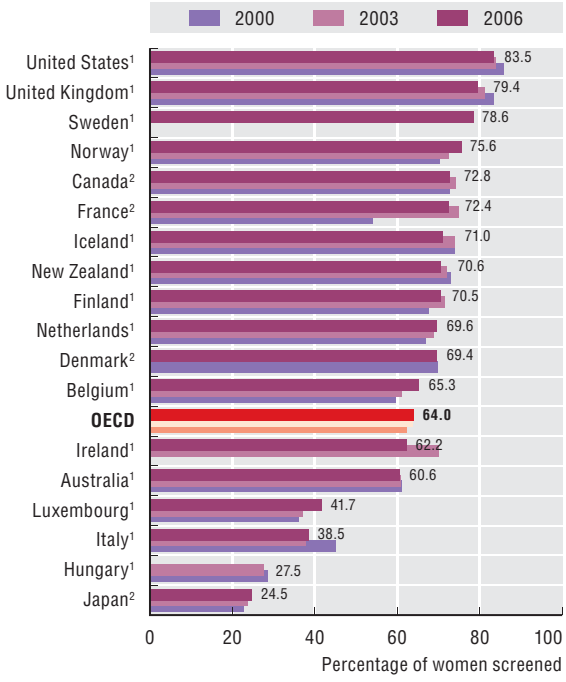
Definition and deviations

Screening rates for cervical cancer reflect the proportion of patients who are eligible for a screening test and actually receive the test. As policies regarding screening periodicity 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 others based on encounter data, which may influence the results. If a country has an organised screening programme, but women receive care outside the programme, rates may be underreported. Survey-based results may also underestimate the rates due to recall bias.

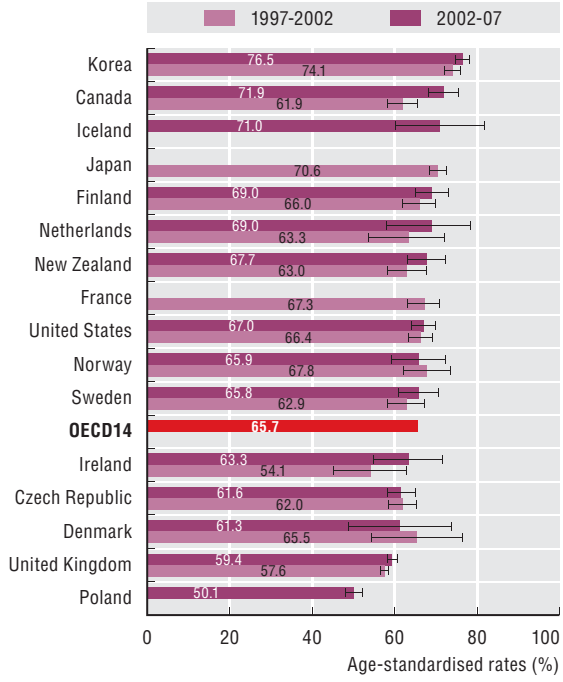
Relative cancer survival rates reflect the proportion of patients with a certain type of cancer who are still alive after a specified time period (commonly five years) compared to those still alive in absence of the disease. Relative survival rates capture the excess mortality that can be attributed to the diagnosis. To illustrate, 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, are in fact still alive. All the survival rates presented here have been age-standardised using the International Cancer Survival Standard (ICSS) population. Data reported in *Health at a Glance 2007* were not age standardised, therefore, rates presented in this edition cannot be compared with those from the previous edition. 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 1.5 "Mortality from cancer" for definition, source and methodology underlying the cancer mortality rates.

5.7.1 Cervival cancer screening, percentage of women screened aged 20-69, 2000 to 2006 (or nearest year)

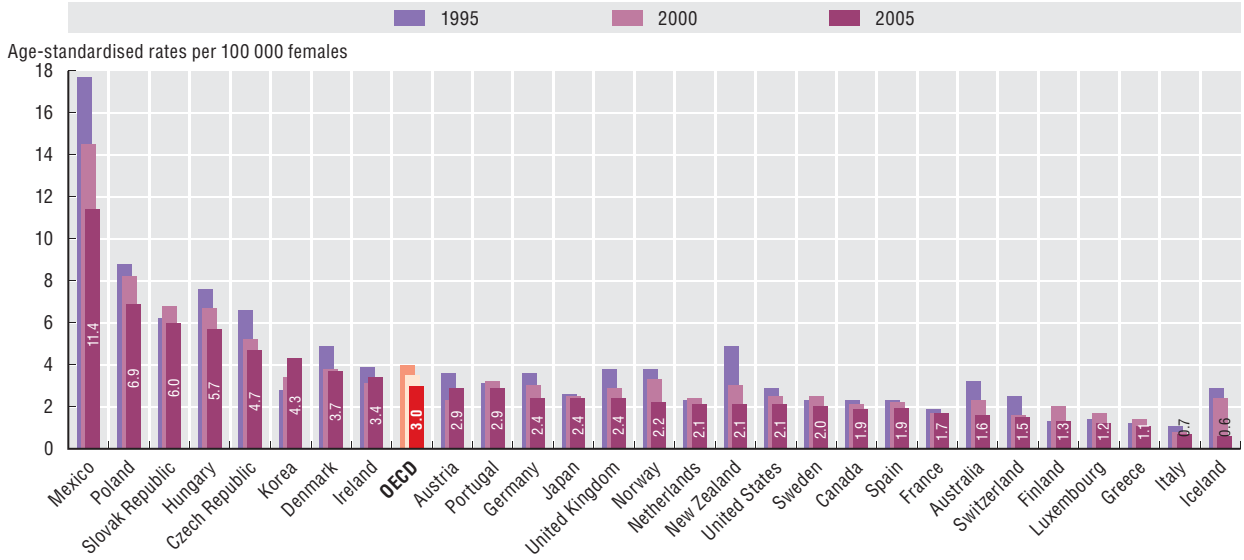


5.7.2 Cervical cancer five-year relative survival rate, 1997-2002 and 2002-07 (or nearest period)



1. Programme. 2. Survey.

5.7.3 Cervical cancer mortality, females, 1995 to 2005 (or nearest year)



Source: *OECD Health Care Quality Indicators Data 2009*. Survival rates are age standardised to the International Cancer Survival Standards population. *OECD Health Data 2009* (cancer screening; mortality data extracted from the WHO Mortality Database and age standardised to the 1980 OECD population). 95% confidence intervals are represented by ⊢⊣ in the relevant figures.

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