



Executive Summary

The majority of deaths from cervical cancer are avoidable. In most women, the Papanicolaou (Pap) smear test can successfully detect lesions before they become cancerous or, if they are cancerous, when the disease is at a stage when treatment can be effective. As a result, cytological screening for the early detection of precursors of cancer of the uterine cervix has been one of the most successful public health measures introduced so far for the prevention of cancer.

Cervical cancer is now the 12th most commonly diagnosed cancer among women of all ages in Canada; however, it ranks third among women aged 20-34 and women aged 35-49. Since the introduction of the Pap test in Canada, the rate of mortality from cervical cancer has steadily declined, with an almost 50% drop over the past 25 years. The incidence of invasive cervical cancer has also fallen considerably as a result of declining rates of squamous cell carcinoma, the form of cervical cancer most amenable to control through the Pap test. Overall, close to 1,000 deaths due to cervical cancer have been prevented each year as a result of improved control measures.

Despite these advances, an estimated 1,400 women in Canada will receive a diagnosis of invasive cervical cancer and approximately 410 women will die from the disease in the year 2002. Women who are older, immigrant or Aboriginal, or who have a lower socio-economic status are at higher risk of developing cervical cancer, as these groups show lower compliance with regular screening schedules. The increasing rate of adenocarcinomas and adenosquamous carcinomas, which account for 20% of all cervical carcinomas, is of concern, as these forms of cervical cancer arise further in the endocervical canal and are less effectively detected by the Pap test. It is now known that the combination of a brush and spatula with an extended tip is more efficient in collecting these cells than the spatula used alone.

In Canada, numerous recommendations have been made over the past 25 years to develop comprehensive cervical cancer screening programs that include population-based recruitment and a quality management component, supported by a computerized information system. Effective organization can eventually reduce the cost of screening programs, while retaining, if not improving their

effectiveness. As many jurisdictions have not fully adopted these recommendations, opportunistic screening continues to be the predominant way in which most women receive screening services. Guidelines for screening frequency have varied over time. The 1989 National Workshop on Cervical Cancer Screening has recommended a yearly Pap test for women who are sexually active and, after two consecutive satisfactory smears that show no significant abnormality, continued screening every 3 years to age 69.


Data from provincial departments of health and established cervical cancer screening programs are presented in this report. Overall, 3-year participation rates do not vary greatly among provinces, ranging from 67% to 74%, although rates are sub-optimal and are also lower than those reported from national surveys. To increase participation rates would require targeting sub-groups of the population that are known to have lower compliance. Although population-based recruitment has the potential to increase overall participation rates, no province or territory in Canada practises this.

Monitoring specimen adequacy is important in measuring quality of smear-taking techniques. The percentage of “unsatisfactory” smears varied from 0.3% to 3.8% of smears taken in 1 year; the percentage of “satisfactory but limited for interpretation” smears varied from 16.3% to 25.5%. Some of the variation is due to the differing thresholds used for reporting specimen inadequacy.

Cytology outcomes were measured as high grade or low grade lesions. The percentage of high grade lesions (most severe findings) varied from 0.5% to 1.4% of “satisfactory” smears in 1 year. Low grade abnormalities differed greatly among provinces, likely because of diverse reporting thresholds and recommendations for follow-up. Greater standardization in reporting is an ongoing goal.

Most women who develop cervical cancer remain unscreened or underscreened. Canadian studies show that about 60% of cervical cancers occur in women who have not been screened in the previous 3 years. Lack of organization has contributed to this failure, including an inability to reach high-risk women, inadequate quality control, or ineffective follow-up procedures. A small number of women will have unfavourable and rapidly progressing abnormalities that will escape





detection through screening. As organized programs continue to develop, cervical cancer screening will reach more women at risk and thereby further reduce mortality from this disease.

The introduction of Pap screening practice into the health care system in Canada has contributed to a significant drop in the incidence and mortality of cervical cancer. Lack of pertinent information on screening practices across this country reinforces the need for information systems to monitor screening activity, cytology outcomes and, subsequently, the effects on incidence and mortality.