

Cervical Cancer Screening in Canada Monitoring Program Performance 2006–2008



December, 2011

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EXECUTIVE SUMMARY

This report presents information on the performance of cervical screening programs from across Canada. The goal of cervical screening is to decrease cervical cancer incidence and mortality through the early detection and treatment of pre-cancerous lesions and early stage invasive cervical cancer. In 2007, the Screening Performance Indicators Working Group—under the guidance of the Public Health Agency of Canada’s Steering Committee for the Cervical Cancer Prevention and Control Network—developed 12 cervical cancer screening program performance indicators in five areas to help monitor cervical cancer screening progress:

- Coverage – participation rate and retention rate
- Cytology performance – specimen adequacy and screening test results
- System capacity – cytology turnaround time and colposcopy follow-up rate
- Follow up – biopsy rate and cytology-histology agreement
- Outcomes – pre-cancer detection rate, cancer incidence, cancers diagnosed at stage I, and screening history in cases of invasive cancer¹

The monitoring of cervical cancer screening performance is a priority of the Pan-Canadian Cervical Screening Initiative (PCCSI), a national cervical cancer screening forum supported by the Canadian Partnership Against Cancer (the Partnership). To address this priority, the PCCSI formed a working group to coordinate the submission and analysis of baseline cervical screening data and to develop an inaugural report. The working group collaborated closely with cervical cancer screening programs to develop standardized reporting definitions and to submit screening data.

The degree of cervical cancer screening program organization varies across the country; therefore, information in this report is limited to provinces with available data: Newfoundland and Labrador, Nova Scotia, Manitoba, Ontario, Saskatchewan, Alberta, British Columbia and New Brunswick. Each provincial cervical cancer screening program reviewed and approved the data and report and all provinces and territories were kept informed of the process even if they did not submit data.

This report presents data for the 12 cervical screening program performance indicators for women 20–69 years of age and for the years 2006–2008. The results provide baseline information about cervical cancer screening outcomes from across Canada. Some provinces were unable to submit data due to multiple factors including data availability, data completeness, human resource issues, information system capacity and technical resources. These gaps must be addressed as reliable, valid and available screening information is essential for evaluating cervical cancer screening in Canada. The next step in the process of monitoring cervical cancer screening program performance is the review and revision of the indicators to reflect changes in cervical cancer control including human papillomavirus testing and vaccination. Through this project and other initiatives, the PCCSI and the Partnership will continue to support the development of provincial and territorial organized cervical cancer screening programs.

Key results by indicator include the following:

Participation Rate

Participation is the percentage of eligible women in the target population who had at least one Pap test in a three-year period. Participation uncorrected for hysterectomy ranged from 63.8% to 75.5%. Participation corrected for hysterectomy ranged from 72.4% to 79.6%.

Retention Rate

Retention is the percentage of eligible women who were re-screened within three years after a negative Pap test. Retention ranged from 74.6% to 87.1%.

Specimen Adequacy Rate

Specimen adequacy is the percentage of unsatisfactory Pap tests, which ranged from 0.6% to 2.3% for conventional cytology and 0.5% to 1.7% for conventional cytology mixed with liquid-based cytology (LBC). The percentage of unsatisfactory Pap tests was 0.5% for the province that used LBC only.

Screening Test Results

Screening test results is the percentage of women by their most severe cytology result in a 12-month period. In order of severity, 95.3% of Pap test results were normal; 2.2% of abnormal cytology results were atypical squamous cells of undetermined significance (ASC-US); 1.7% were low-grade squamous intraepithelial lesions (LSIL); 0.1% were atypical glandular cells (AGC); 0.2% were atypical squamous cells, high-grade (ASC-H); and 0.5% were high-grade squamous intraepithelial lesions (HSIL) or more severe (carcinoma in situ and invasive cancer).

Cytology Turnaround Time

Cytology turnaround time is the median number of days from the date of specimen collection to the date the Pap test report is issued by the laboratory over a 12-month period. The median cytology turnaround time ranged from 10 to 24 days.

Colposcopy Follow-up Rate

Colposcopy follow-up rate is the percentage of women with a high-grade Pap test result (ASC-H and HSIL+) who had a colposcopy within three, six, nine and 12 months. The follow-up rate within 12 months ranged from 76.8% to 96.8%.

Biopsy Rate

Biopsy rate is the percentage of women with a high-grade Pap test result (ASC-H and HSIL+) who had a histological investigation within 12 months of the Pap test. The biopsy rate was 89.8%.

Cytology-histology Agreement

Cytology-histology agreement is the percentage of high-grade Pap test results (ASC-H and HSIL+) that had a histological confirmation of CIN II+ (moderate dysplasia) and CIN III+ (severe dysplasia, carcinoma in situ and invasive cervical cancer) within 12 months of the high-grade Pap test. The percentage of biopsy results that agreed with the Pap test result ranged from 43.6% to 67.5%.

Pre-cancer Detection Rate

The pre-cancer detection rate is the number of pre-cancerous lesions detected per 1,000 women screened who had a Pap test in a 12-month period. This rate ranged from 4.2 to 5.5 per 1,000 women screened.

Cancer Incidence

Cancer incidence is the number of new cases of invasive cervical cancer per 100,000 women. The age-standardized invasive cervical cancer incidence for women 20–69 years of age was 10.7 per 100,000 and ranged from 9.0 per 100,000 to 12.5 per 100,000.

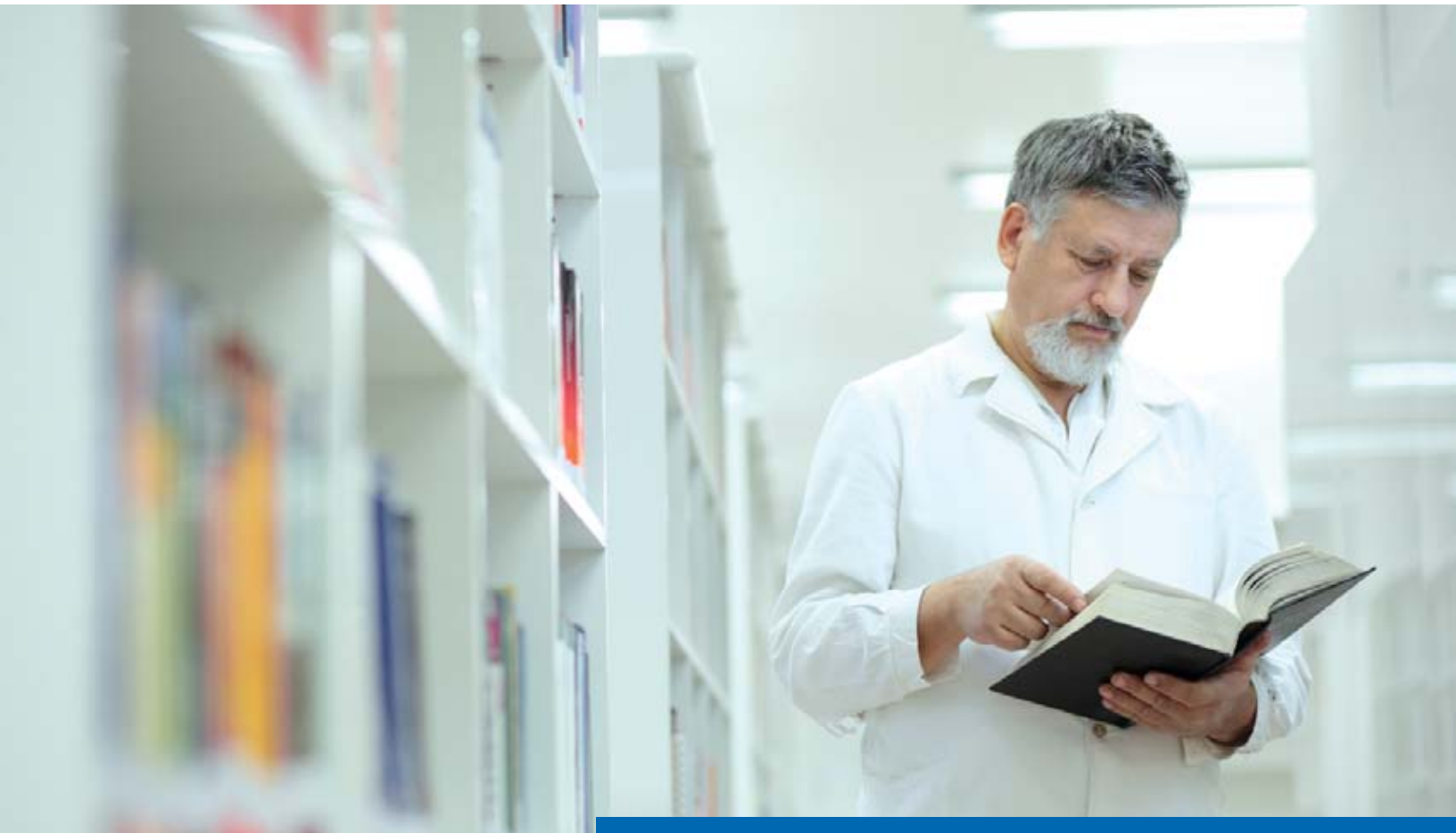
Cancers Diagnosed at Stage I

Cancers diagnosed at stage I is the percentage of invasive cervical cancer cases detected at stage I according to the International Federation of Gynecology and Obstetrics (FIGO) classification system. Cancers diagnosed at stage I ranged from 36.2% to 58.5%.

Screening History in Cases of Invasive Cancer

Screening history in cases of invasive cancer is a retrospective summary of screening prior to diagnosis, and is measured as the percentage of women diagnosed with invasive cervical cancer since the last Pap test. The percentage of women diagnosed with invasive cervical cancer who had a Pap test greater than five years before a diagnosis of invasive cervical cancer or who had never had a Pap test ranged from 35.1% to 57.6%.

Background



Introduction

Screening using the Papanicolaou test (Pap test or cervical cytology) has led to significant reductions in cervical cancer incidence and mortality in Canada.² Despite this success, 1,400 Canadian women are diagnosed with invasive cervical cancer annually.³ Many studies have found that women diagnosed with invasive cervical cancer were not screened in the five years before diagnosis, were not followed appropriately after an abnormal Pap test, or the Pap test failed to detect their cancer.⁴ It is critical to continuously monitor and evaluate cervical cancer screening to ensure that Canadian women receive high-quality cancer prevention services.

Cervical screening has occurred in much of Canada spontaneously or opportunistically; however, organized screening programs provide the vital components to effectively reduce the burden of cervical cancer and to permit the evaluation of screening effectiveness, which is a key priority for the Pan-Canadian Cervical Screening Initiative (PCCSI), a national cervical cancer screening forum supported by the Canadian Partnership Against Cancer (the Partnership). In 2010, the PCCSI formed a working group to coordinate the submission and analysis of baseline cervical screening data from across Canada using 12 program performance indicators previously developed by the Screening Performance Indicators Working Group and the Public Health Agency of Canada.¹ The working group collaborated with screening programs from across the country to develop standardized reporting definitions and to submit cervical cancer screening data.

This report presents information on the 12 program performance indicators for women 20–69 years of age for 2006–2008. The results differ across the country and are influenced by the level of screening program organization, the target population, service access and provision, reporting thresholds for test results, follow-up and treatment, and screening interval recommendations. Data availability and completeness also differed by province. Appendix B provides detailed information about cervical cancer screening programs in Canada.

Human Papillomavirus

Cervical cancer is caused by the human papillomavirus (HPV). Of the more than 100 types of identified HPV, 40 infect the genital tract; of these, approximately 15 are considered high risk, with types 16 and 18 causally linked to 70% of cervical cancer cases. HPV is a prevalent sexually transmitted virus; peak prevalence occurs during adolescence and the early twenties after the commencement of sexual activity. Most HPV infections are transient and are cleared by the immune system without signs or symptoms. However, a small percentage of women experience persistent infections. For these women, the average time between being infected with a high-risk HPV type and developing a pre-cancerous lesion is 24 months, with a further 8–12 years before the development of invasive cervical cancer. Because of this long natural history, screening is an effective strategy for the identification and treatment of pre-cancerous cervical lesions.

Pre-cancerous Lesions

The goal of cervical screening is to decrease cervical cancer incidence and mortality through the early detection and treatment of pre-cancerous lesions, which include moderate and severe cervical dysplasia (cervical intraepithelial neoplasia II and III) and cervical carcinoma in situ. If a pre-cancerous lesion is removed or destroyed, invasive cervical cancer can usually be prevented.

Cervical Cancer

Cervical cancer is a malignancy of the cells lining the surface of the cervix. Approximately 80% of cervical cancers are squamous cell carcinomas (cancers that arise from squamous cells), 15% are adenocarcinomas (cancers that arise from glandular or columnar cells) and 5% are mixed adenosquamous cell carcinomas and other rare histological types. Invasive cervical cancer is a relatively uncommon disease in Canada due to the widespread use of screening and the diagnosis and treatment of pre-cancerous lesions. In 2006, 1,400 Canadian women were diagnosed with invasive cervical cancer; 380 women died from the disease.² Invasive cervical cancer incidence has declined from 15.4 per 100,000 in 1977 to 8.0 per 100,000 in 2006,² while invasive cervical cancer mortality has declined from 4.8 per 100,000 in 1977 to 2.0 per 100,000 in 2006.²

HISTORY OF CERVICAL CANCER SCREENING IN CANADA

In Canada, cervical cancer screening policy and organization occurs at the provincial and territorial level. The delivery of cervical cancer screening has been largely opportunistic, depending on the initiative of the individual woman and/or her health care provider. However, cervical screening programs in Canada are becoming increasingly organized. As early as 1973, the Conference of Deputy Ministers of Health recognized that cervical cancer screening should be implemented as organized screening programs, a recommendation repeated by a variety of task forces and published reports.^{5, 6} The minimum essential elements of an organized cervical screening program include an explicit screening policy with specific age categories, methods, and intervals for screening; a defined target population; a management team responsible for program implementation; a health care team that can provide care; a quality assurance structure; and a method for identifying cancer occurrence in the target population.⁷

CERVICAL CANCER SCREENING PROCESS

Figure 1 illustrates the cervical cancer screening process. Eligible women are given a Pap test by their health care provider, which is then processed by the laboratory. Women who have a normal Pap test result are re-screened every one to three years depending on provincial or territorial guidelines, while those who have an abnormal Pap test are sent for a repeat Pap test or colposcopy and/or biopsy depending on the severity of the abnormality. In an organized screening program, eligible women are invited to be screened and re-called based on the Pap test result.

Pap Test

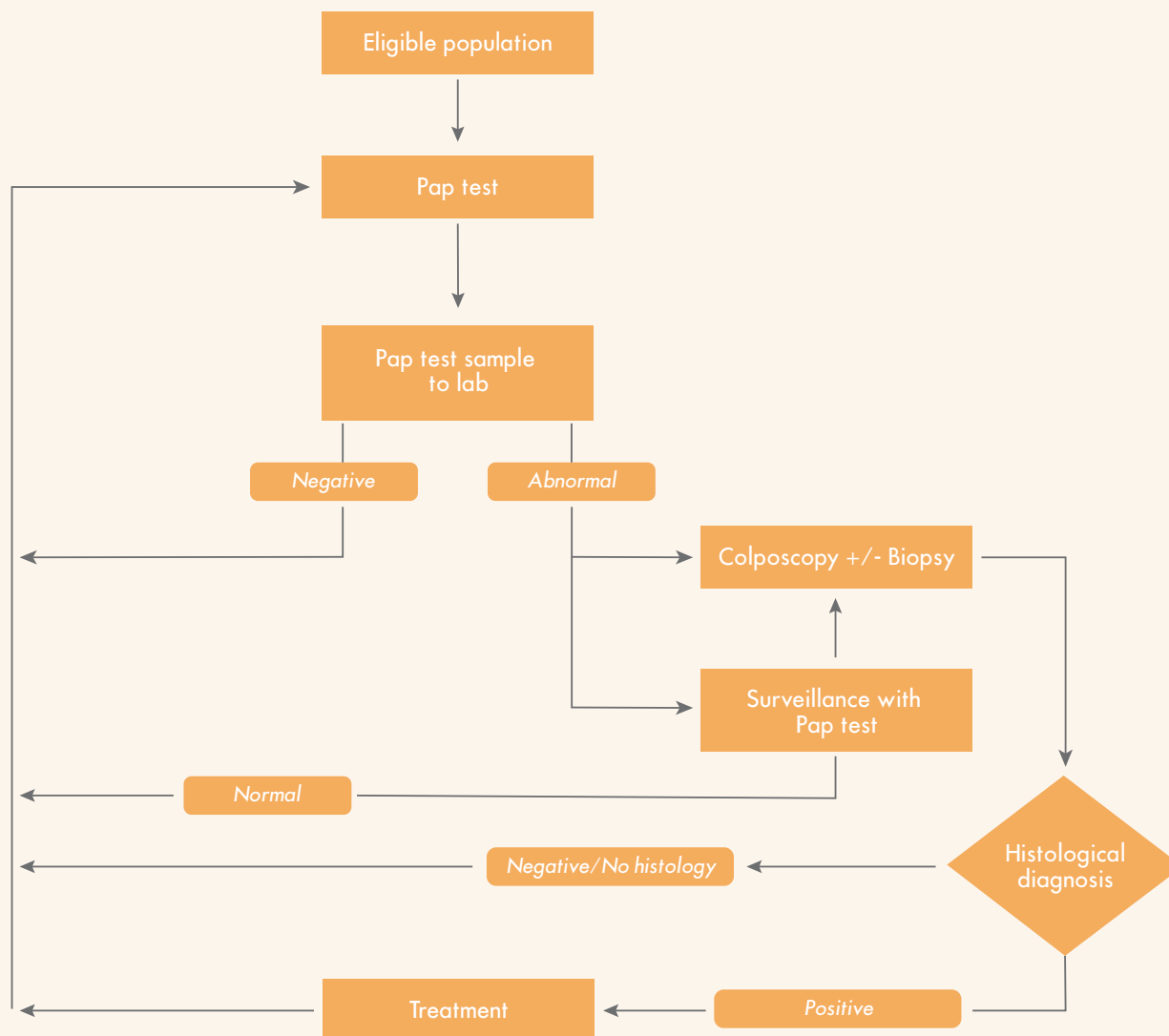
The Pap test (cervical cytology) screens for abnormal changes in cervical cells. A sample of cervical cells is smeared on a slide (conventional cytology) or placed in a liquid fixative (liquid-based cytology – LBC) and screened for squamous or glandular pre-cancerous changes. These changes are classified on a scale of increasing severity using standardized terminology. In Canada, the most common classification system used is the 2001 Bethesda System.⁸

Follow-up and Treatment

Although guidelines vary slightly, the Pap test is usually repeated in six months for low-grade abnormalities. For high-grade abnormalities, the woman is referred for colposcopy, during which a detailed examination of the cervix is performed. In some cases, a biopsy is conducted to confirm the nature of the changes, and the lesion is treated by local excision, cryotherapy, laser ablation or conization.

Figure 1

The cervical cancer screening process



Methods



Development of Program Performance Indicators

In 2007, a Screening Performance Indicators Working Group was formed under the guidance of the Public Health Agency of Canada's Steering Committee for the Cervical Cancer Prevention and Control Network. The Working Group identified 12 indicators to facilitate the comparison of cervical cancer screening performance across Canada (Figure 2):¹

- Participation rate
- Retention rate
- Specimen adequacy
- Screening test results
- Cytology turnaround time
- Colposcopy follow-up rate
- Biopsy rate
- Cytology-histology agreement
- Pre-cancer detection rate
- Cancer incidence
- Cancers diagnosed at stage I
- Screening history in cases of invasive cancer

The definition for each indicator is summarized in Table 1; Appendix C provides more detailed definitions.

Table 1

Program performance indicators for cervical cancer screening in Canada

Indicator	Definition
1. Participation Rate	Percentage of eligible women in the target population with at least one Pap test in a three-year period.
2. Retention Rate	Percentage of eligible women re-screened within three years following a negative Pap test in a 12-month period.
3. Specimen Adequacy Rate	Percentage of test results that are reported as unsatisfactory in a 12-month period.
4. Screening Test Results	Percentage of women by their most severe Pap test result in a 12-month period.
5. Cytology Turnaround Time	The median number of calendar days from the date the Pap test is taken to the date the Pap test report is issued by the laboratory in a 12-month period.
6. Colposcopy Follow-up Rate	Percentage of women with a high-grade Pap test result (ASC-H/ HSIL+) who had a follow-up colposcopy examination within three, six, nine and 12 months of the Pap test.
7. Biopsy Rate	Percentage of women with a high-grade Pap test result (ASC-H and HSIL+) who had a biopsy within 12 months of the Pap test.
8. Cytology-Histology Agreement	The percentage of high-grade Pap test results (ASC-H/HSIL+) that had a CIN II + (moderate dysplasia) or CIN III+ (severe dysplasia, carcinoma in situ and invasive cervical cancer) biopsy result within 12 months of the Pap test.

9. Pre-cancer Detection Rate	Number of pre-cancerous lesions (CIN II – moderate dysplasia, CIN III — severe dysplasia and cervical carcinoma in situ excluding adenocarcinoma in situ) detected per 1,000 women screened in a 12-month period.
10. Cancer Incidence	Number of new cases of invasive cervical cancer per 100,000 women.
11. Cancers Diagnosed at Stage I	Percentage of cases of invasive cervical cancer diagnosed at stage 1 (FIGO stage) in a 12-month period.
12. Screening History in Cases of Invasive Cancer	Percentage of women with invasive cervical cancer whose last Pap test was six months to less than three years, three to five years, or greater than five years before the date of cancer diagnosis.

Project Approach

In 2010, the PCCSI established a working group that included PCCSI representatives from east, west and central Canada as well as the Public Health Agency of Canada (PHAC) and the Partnership to develop a process for monitoring cervical cancer screening nationwide. A working group chair and a program manager were also assigned to the project. The responsibilities of the working group were to identify what data should be collected, develop a data collection process, produce an inaugural report and plan for future reports.

A data group comprised of data analysts from each of the screening programs was also formed with the responsibilities of providing expertise and advice on data definitions, analytical details and methodology, and coordinating the data submission from each province.

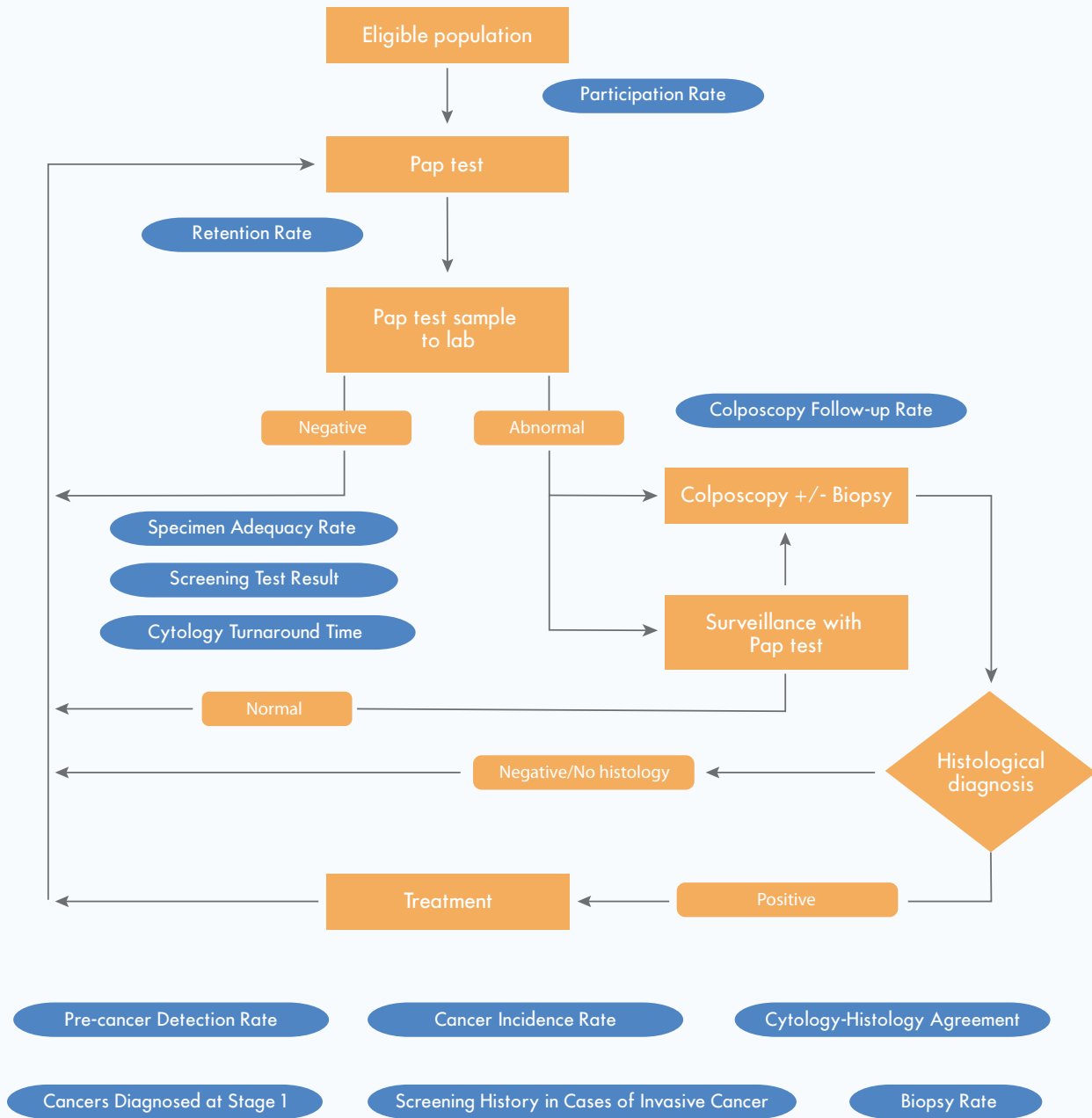
The project approach included completing an environmental scan, sending a formal request for aggregate data to the provinces and territories, and developing a data document with detailed definitions for each of the 12 indicators (Appendix C). This document was circulated and reviewed by the data group several times to ensure reporting consistency across the cervical screening programs.

Data Submission and Analyses

Aggregate, non-identifiable data were submitted to the Partnership from the following cervical cancer screening programs: Newfoundland and Labrador, New Brunswick, Nova Scotia, Manitoba, Saskatchewan, Alberta, Ontario and British Columbia. Information was not available from Quebec, Prince Edward Island, the Yukon, the Northwest Territories and Nunavut. Not every province was able to submit data for every indicator due to multiple factors including data availability, data completeness, human resource issues, information system capacity and technical resources.

The Partnership's analytics team created data submission templates—which were reviewed and tested by the data group—using Excel to standardize the approach to data submission. The analytics team also created summary tables and figures that were reviewed by both the working group and data group, and were approved by the provincial cervical cancer screening programs.

Figure 2
Cancer screening indicators



Results



Results

Results are presented for women 20–69 years of age for the years 2006–2008. These years represent the most recent data consistently available from the cervical cancer screening programs.

The degree of program organization varies across the country; therefore, the information in this report is limited to provinces with available data: Newfoundland and Labrador, Nova Scotia, Manitoba, Saskatchewan, Alberta, British Columbia, Ontario and New Brunswick. All provinces and territories were kept informed of the process regardless of whether they were able to submit data.

Indicator variability between provinces is due to a variety of factors including the degree of program organization, characteristics of the target population, service access and provision, reporting thresholds for test results, availability of follow-up and treatment information, and the number and availability of health care providers and diagnostic assessment and treatment facilities.

Participation Rate

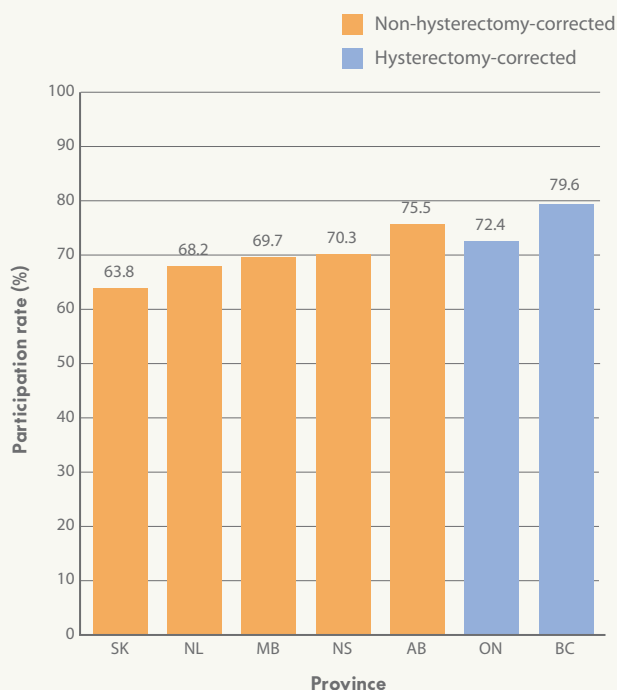
Participation is the percentage of eligible women who had at least one Pap test in a three-year period. The participation rate should exclude women who have had a total hysterectomy as these women may not need routine screening. At this time, participation corrected for hysterectomy was available for two provinces.

Figure 3 shows the percentage of women 20–69 years of age who had at least one Pap test from 2006 to 2008 by province. Participation uncorrected for hysterectomy ranged from 63.8% to 75.5%, while participation corrected for hysterectomy ranged from 72.4% to 79.6%. To correct for hysterectomy, Ontario used both administrative data to identify women who had a prior hysterectomy and previously published hysterectomy rates. British Columbia excluded all non-cervical cytology tests (e.g., vaginal vault tests), and adjusted the denominator based on historical hysterectomy rates within the province.



Figure 3

Percentage of women 20–69 years of age who had at least one Pap test by province, 2006–2008

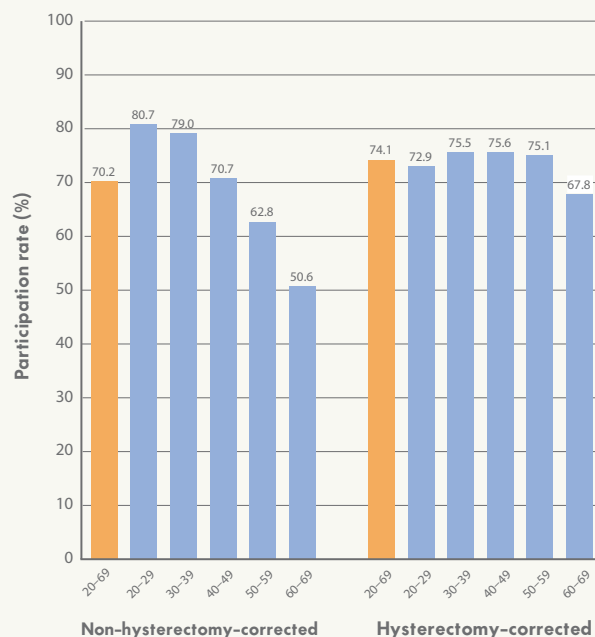


Notes: Ontario and British Columbia provided participation rates corrected for hysterectomy. To correct for hysterectomy, Ontario used both administrative data to identify women who had a prior hysterectomy and previously published hysterectomy rates. BC excluded all non-cervical cytology tests (e.g., vaginal vault tests) and adjusted the denominator based on historical hysterectomy rates within the province. NL provided historical data from 2005–2007. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Figure 4 shows the percentage of women 20–69 years of age who had at least one Pap test by 10-year age groups from 2006 to 2008. The rates are presented first for the provinces that provided participation uncorrected for hysterectomy and second for provinces that provided participation corrected for hysterectomy. Participation was 70.2% uncorrected for hysterectomy and 74.1% corrected for hysterectomy. Participation (non-hysterectomy corrected) decreased from 80.7% among 20–29 year old women to 50.6% among 60–69 year old women. When corrected for hysterectomy, participation was more uniform across the age groups and decreased only for women 60–69 years of age (67.8%). This highlights the importance of correcting for hysterectomy to reduce any misconceptions about where efforts at increasing participation should be directed.

Figure 4

Percentage of women who had at least one Pap test by age group, 2006–2008, provinces combined



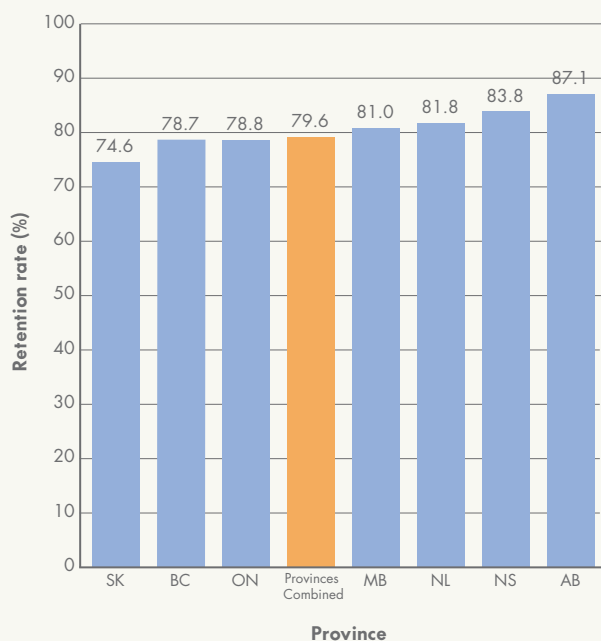
Notes: Includes SK, NL, NS, MB and AB (non-hysterectomy corrected); BC and ON (hysterectomy corrected). NL provided historical data from 2005–2007. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Retention Rate

Retention is the percentage of eligible women who are re-screened within three years after a negative Pap test. Figure 5 shows the percentage of women 20–69 years of age who had a Pap test within three years after a negative Pap test by province for 2004 and 2005 (non-hysterectomy corrected). Retention was 79.6% and ranged from 74.6% to 87.1%.

Figure 5

Percentage of women 20–69 years of age who had a Pap test within 3 years after a negative Pap test by province, 2004 and 2005

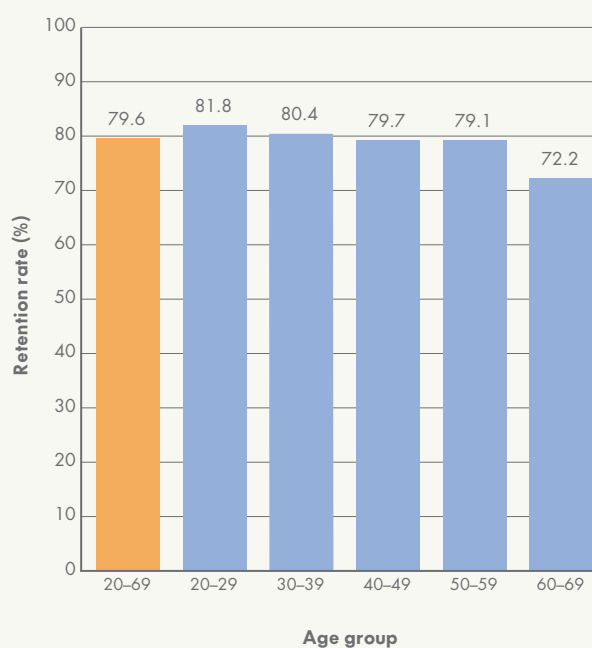


Notes: NL provided data for 2004. ON provided data for 2003 and 2006 for approximately 85% of all Pap tests performed in the province. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Figure 6 shows the percentage of women—by age group for 2004 and 2005—who had a Pap test within three years following a negative Pap result for all provinces combined. Retention decreased slightly with age from 81.8% in the 20–29 age group to 72.2% in the 60–69 age group.

Figure 6

Percentage of women who had a Pap test within three years following a negative Pap result by age group, 2004 and 2005, provinces combined



Notes: Includes SK, BC, ON, MB, NL, NS and AB. NL provided data for 2004. ON provided data for 2003 and 2006 for approximately 85% of all Pap tests performed in the province. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

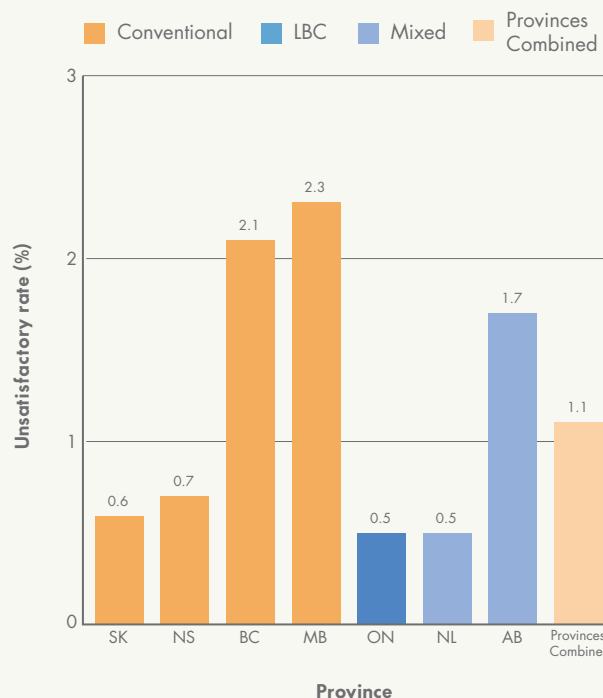
Specimen Adequacy

Specimen adequacy is the percentage of Pap test results in a 12-month period that the laboratory reports as unsatisfactory for interpretation. Specimen adequacy is influenced by variability between health care providers, laboratory reporting protocols and cytology type. Conventional cytology was used in Saskatchewan, Nova Scotia, British Columbia and Manitoba, while liquid-based cytology (LBC) was used in Ontario. Both LBC and conventional cytology (mixed) were used in Newfoundland and Labrador and Alberta during 2007 and 2008.

Figure 7 shows the percentage of unsatisfactory Pap tests for women 20–69 years of age by province for 2007 and 2008. The percentage of unsatisfactory Pap tests for the provinces combined was 1.1%, and the percentage of unsatisfactory Pap tests using conventional cytology ranged from 0.6% to 2.3%. The percentage of unsatisfactory Pap tests using LBC was 0.5%, while the percentage of unsatisfactory Pap tests using both conventional cytology and LBC was 0.5% and 1.7%.

Figure 7

Percentage of unsatisfactory Pap test results for women 20–69 years of age by province, 2007 and 2008



Notes: NL and SK provided data for 2007. ON provided data for approximately 87% of all Pap tests performed in the province. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Screening Test Results

Screening test results are the percentage of women by the most severe satisfactory Pap test result in a 12-month period using the 2001 Bethesda System of classification (Appendix D). Screening test results are influenced by the rate of cervical abnormalities in the population, specimen collection and preparation (conventional or LBC), interpretation, and reporting criteria. The percentage of abnormal Pap test results impacts the volume of colposcopy and other required procedures.

Table 2 shows the percentage of women 20–69 years of age by their most severe Pap test result by province for 2007 and 2008. The percentage of women who had a negative Pap test result was 95.3%. The percentage of women who had an abnormal cytology result was 4.7% and ranged from 3.6% to 6.3%. Overall, 2.2% of abnormal cytology results were ASC-US, 1.7% were LSIL, 0.1% were AGC, 0.2% were ASC-H, and 0.5% were HSIL or more severe. The percentage of women who had an HSIL or more severe result ranged from 0.3% to 0.9%.

Table 2

Percentage of women 20–69 years of age by the most severe Pap test result by province, 2007 and 2008

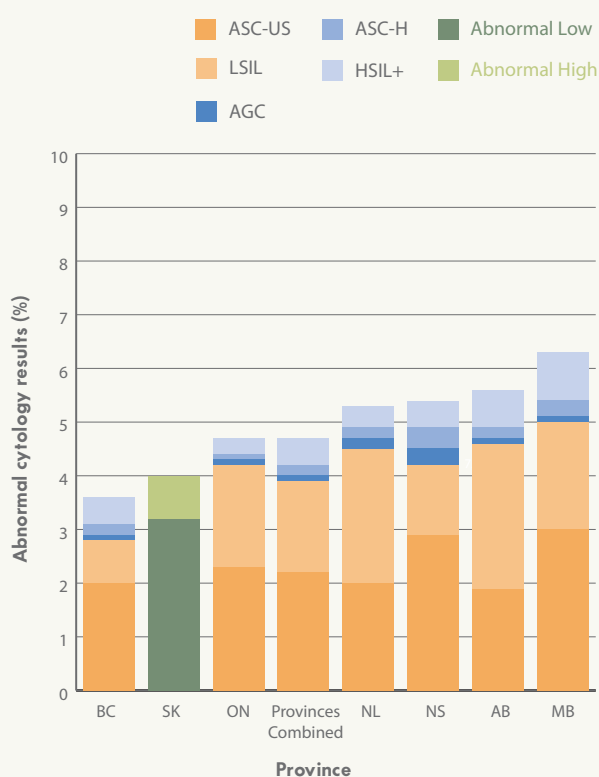
Pap Test Result	Percentage							
	Provinces Combined	BC	SK	ON	NL	NS	AB	MB
Negative	95.3	96.4	96.0	95.2	94.7	94.6	94.4	93.6
ASC-US	2.2	2.0	NA	2.3	2.0	2.9	1.9	3.0
LSIL	1.7	0.8	NA	1.9	2.5	1.3	2.7	2.0
AGC	0.1	0.1	NA	0.1	0.2	0.3	0.1	0.1
ASC-H	0.2	0.2	NA	0.1	0.2	0.4	0.2	0.3
HSIL+	0.5	0.5	NA	0.3	0.4	0.5	0.7	0.9
Abnormal Low	–	–	3.2	–	–	–	–	–
Abnormal High	–	–	0.8	–	–	–	–	–
Total Abnormal	4.7	3.6	4.0	4.7	5.3	5.4	5.6	6.3

Notes: Provinces combined includes AB, BC, MB, NL, NS and ON. SK provided two cytology categories: abnormal low and abnormal high. Abnormal low includes AGC, AGCN, AGEC, AGEEN, AGEM, ASA, ASCU, ASE and LSIL. Abnormal high includes ADC, AIS, ASHG, HSIL, PC2, PSCC and SCC. (Refer to Appendix D for the full name of the codes). NL provided data for 2007. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). ON provided data for approximately 87% of all Pap tests performed in the province. Approximately 0.01% of the Pap tests had an 'other abnormal cell' finding and were excluded from this calculation.

Figure 8 illustrates the percentage of women 20–69 years of age by their most severe abnormal Pap test result (ASC-US, LSIL, AGC, ASC-H and HSIL+) by province for 2007 and 2008. Saskatchewan provided two summary Pap test result categories: abnormal low and abnormal high.

Figure 8

Percentage of women 20–69 years of age by the most severe abnormal Pap test result by province, 2007 and 2008

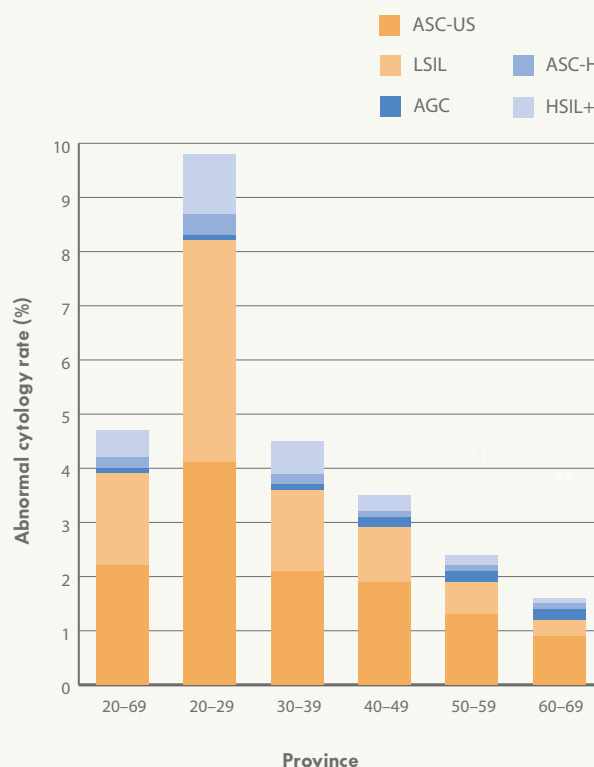


Notes: Provinces combined includes AB, BC, MB, NL, NS and ON. SK provided two cytology categories: abnormal low and abnormal high. Abnormal low includes AGC, AGCN, AGECE, AGEEN, AGEM, ASA, ASCU, ASE and LSIL. Abnormal high includes ADC, AIS, ASHG, HSIL, PC2, PSCC and SCC. (Refer to Appendix D for the full name of the codes). NL provided data for 2007. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). ON provided data for approximately 87% of all Pap tests performed in the province. Approximately 0.01% of the Pap tests had an 'other abnormal cell' finding and were excluded from this calculation.

Table 3 and Figure 9 show the percentage of women by their most severe Pap test result and age group (excluding Saskatchewan). The percentage of women who had a negative Pap test result increased with age from 90.3% for women 20–29 years of age to 98.4% for women 60–69 years of age. The percentage of women who had an HSIL or more severe Pap test result decreased with age from 1.1% for women 20–29 years of age to 0.1% for women 60–69 years of age.

Figure 9

Percentage of women by most severe abnormal Pap test result and age group, 2007 and 2008, provinces combined



Notes: Includes AB, BC, MB, NL, NS and ON. NL provided data for 2007. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). ON provided data for approximately 87% of all Pap tests performed in the province. Approximately 0.01% of the Pap tests had an 'other abnormal cell' finding and were excluded from this calculation.

Table 3

Percentage of women by the most severe Pap test result and by age group, 2007 and 2008, provinces combined

Pap Test Result	Percentage					
	20–69	20–29	30–39	40–49	50–59	60–69
Negative	95.3	90.3	95.5	96.5	97.6	98.4
ASC-US	2.2	4.1	2.1	1.9	1.3	0.9
LSIL	1.7	4.1	1.5	1.0	0.6	0.3
AGC	0.1	0.1	0.1	0.2	0.2	0.2
ASC-H	0.2	0.4	0.2	0.1	0.1	0.1
HSIL+	0.5	1.1	0.6	0.3	0.2	0.1
Total Abnormal	4.7	9.8	4.5	3.5	2.4	1.6

Notes: Includes AB, BC, MB, NL, NS and ON. NL provided data for 2007. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). ON provided data for approximately 87% of all Pap tests performed in the province. Approximately 0.01% of the Pap tests had an 'other abnormal cell' finding and were excluded from this calculation.

Cytology Turnaround Time

Cytology turnaround time is the median number of days from performance of the Pap test to issuance of the Pap test report by the laboratory over a 12-month period. Cytology turnaround time is a measure of the system's capacity to process Pap tests in a timely manner and is influenced by human resources and information systems.

Table 4 shows the median cytology turnaround time for women 20–69 years of age by province for 2007 and 2008. The median cytology turnaround time ranged from 11–53 days in 2007 and 10–24 days in 2008.

Table 4

Median number of days from performance of the Pap test to issuance of the Pap test report by the laboratory by province for women 20–69 years of age

Province	Median Number of Days	
	2007	2008
BC	14	11
MB	11	10
NL	12	NA
NS	53	24
ON	21	16
SK	12	14

Notes: NL provided data for 2007. ON provided data for approximately 87% of all Pap tests performed in the province. The implementation of a new information system in NS during this time period led to an increased cytology turnaround time.

Colposcopy Follow-up Rate

The colposcopy follow-up rate is the percentage of women with a high-grade Pap test result (ASC-H and HSIL+) who had a follow-up colposcopy examination within three, six, nine and 12 months. A colposcopy is a visual examination of the cervix that is sometimes accompanied by a biopsy to confirm a cervical abnormality.

The colposcopy follow-up rate excludes colposcopies that were performed within seven days of the Pap test as the Pap test may have been taken at the time of colposcopy and is unlikely to be the reason for the colposcopy referral. The colposcopy follow-up rate is influenced by the cytology turnaround time and may differ by province because of the completeness and availability of colposcopy data.

Table 5 and Figure 10 show the percentage of women 20–69 years of age with a high-grade Pap test result (ASC-H and HSIL+) who had a colposcopy examination within three, six, nine and 12 months for 2007 and 2008. The 12-month colposcopy follow-up rate was 76.8%, 81.4% and 96.8%.

Table 5

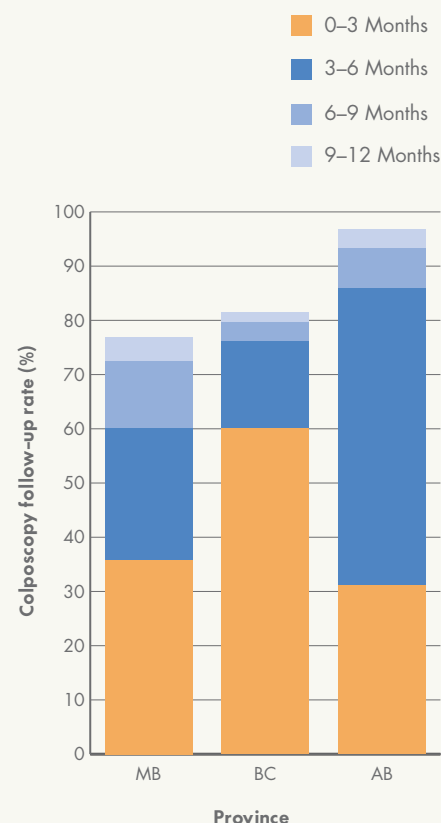
Percentage of women 20–69 years of age with a high-grade (ASC-H and HSIL+) Pap test result who had a follow-up colposcopy examination within 12 months by province, 2007 and 2008

Month	Percentage		
	MB	BC	AB
0–3	35.8	60.0	31.1
3–6	24.2	16.1	54.9
6–9	12.5	3.6	7.2
9–12	4.3	1.7	3.6
Total within 12 months	76.8	81.4	96.8

Notes: BC received 97% of all colposcopy reports. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Figure 10

Percentage of women 20–69 years of age with a high-grade Pap test result (ASC-H and HSIL+) who had the follow-up colposcopy examination within 12 months by province, 2007 and 2008



Notes: BC received 97% of all colposcopy reports. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Biopsy Rate

The biopsy rate is the percentage of women with a high-grade Pap test result (ASC-H and HSIL+) who had a biopsy (histological investigation) within the following 12 months. The biopsy rate is influenced by the colposcopy follow-up rate, the source of biopsy information and reasons for not performing a biopsy (i.e., pregnancy or the inability to identify the area of abnormality).

Information on the biopsy rate was available for British Columbia. The percentage of women 20–69 years of age with a high-grade (ASC-H and HSIL+) Pap test result who had a biopsy within 12 months for 2007 and 2008 was 89.8%.

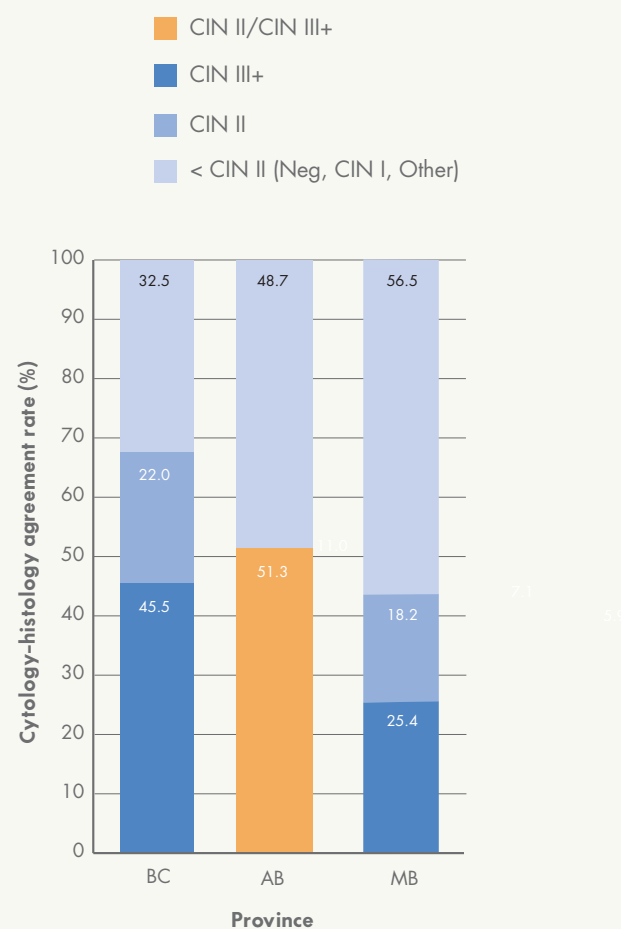
Cytology-Histology Agreement

The cytology-histology agreement is the percentage of high-grade Pap test results (ASC-H and HSIL+) that had a histological confirmation of CIN II+ (moderate dysplasia) and CIN III+ (severe dysplasia, carcinoma in situ and invasive cervical cancer) within 12 months of the high-grade Pap test. A histological confirmation includes any cervical, vaginal or endo-cervical biopsy result. The agreement between cytology and histology is influenced by the colposcopy follow-up rate, the biopsy rate, and the completeness and availability of colposcopy and biopsy information. Over-calling cytology (i.e., a low cytology-histology agreement or unnecessarily sending women for a colposcopy) can create longer wait times for women who do need a colposcopy.

Figure 11 shows the cytology-histology agreement for women 20–69 years of age for 2007 and 2008. The percentage of biopsy results that agreed with the Pap test result (CIN II or CIN III+ biopsy result and an ASC-H or HSIL+ Pap test result) was 67.5%, 51.3% and 43.6%, while the percentage of biopsy results that did not agree with the Pap test result (negative or CIN I biopsy result and an ASC-H or HSIL+ Pap test result) was 32.5%, 48.7% and 56.5%.

Figure 11

Percentage of high-grade Pap tests (ASC-H and HSIL+) for women 20–69 years of age who had biopsy results* within 12 months by province, 2007 and 2008



Notes: AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). AB provided data for CIN II and CIN III+ combined.

* Histological confirmation includes any cervical, vaginal or endo-cervical histology result.

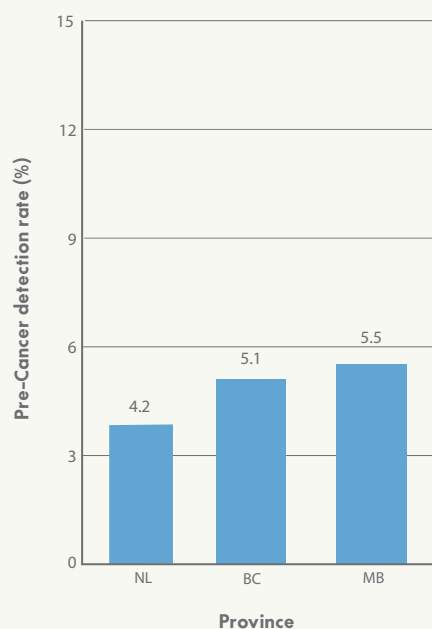
Pre-cancer Detection Rate

The pre-cancer detection rate is the number of pre-cancerous lesions (CIN II and CIN III biopsy results—moderate and severe dysplasia and cervical carcinoma in situ excluding adenocarcinoma in situ) detected per 1,000 women screened in a 12-month period. Differences in the pre-cancer detection rate may be related to the availability of biopsy data.

Figure 12 shows the number of women 20–69 years of age diagnosed with a pre-cancerous lesion (CIN II or CIN III biopsy result) per 1,000 women screened for 2007 and 2008. The pre-cancerous detection rates were 4.2, 5.1 and 5.5 per 1,000 women screened.

Figure 12

Number of women 20–69 years of age diagnosed with a pre-cancerous lesion* per 1,000 women screened by province, 2007 and 2008



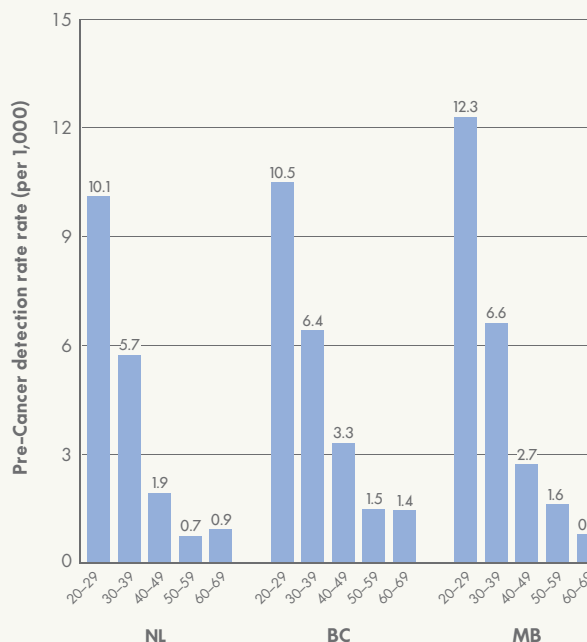
Notes: NL provided data for 2007 and includes approximately 95% of all cytology reports.

*Pre-cancerous lesions include CIN II (moderate dysplasia) and CIN III (severe dysplasia and cervical carcinoma in situ excluding adenocarcinoma in situ).

Figure 13 shows the pre-cancer detection rate per 1,000 women screened by age group and province for 2007 and 2008. The pre-cancer detection rate was higher among women 20–29 years of age (10.1, 10.5 and 12.3 per 1,000 women screened) and decreased with age.

Figure 13

Number of women diagnosed with a pre-cancerous lesion* per 1,000 women screened by age group, 2007 and 2008



Notes: NL provided data for 2007 and includes approximately 95% of all cytology reports.

*Pre-cancerous lesions include CIN II (moderate dysplasia) and CIN III (severe dysplasia and cervical carcinoma in situ excluding adenocarcinoma in situ).

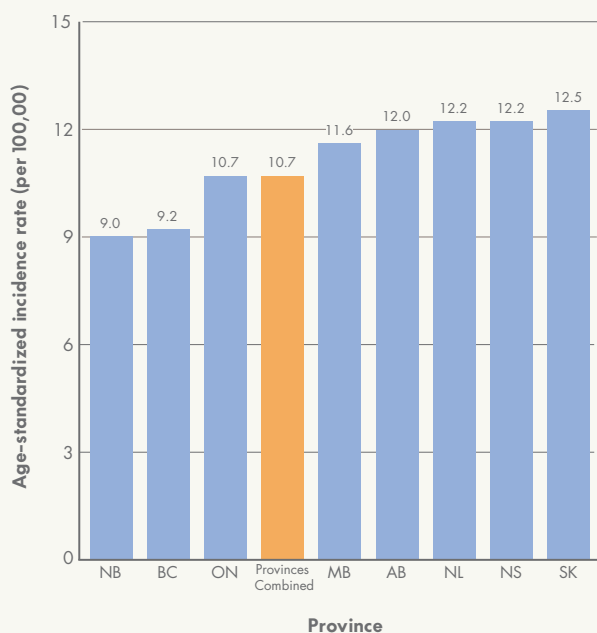
Cancer Incidence

Cervical cancer incidence is the number of new cases of invasive cervical cancer per 100,000 women 20–69 years of age. Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53 codes).

Figure 14 shows the age-standardized invasive cervical cancer incidence per 100,000 women by province from 2005 to 2008. The age-standardized invasive cervical cancer incidence for the provinces combined was 10.7 per 100,000 women; incidence ranged from 9.0 to 12.5 per 100,000 women. Because this rate is for women 20–69 years of age, it may not be comparable to the rates presented for all age groups in other reports.

Figure 14

Age-standardized invasive cervical cancer* incidence per 100,000 by province, 2005–2008



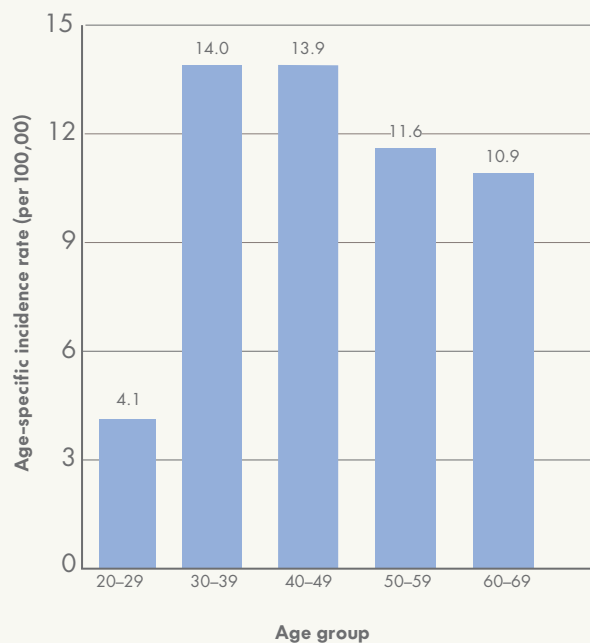
Note: ON included data for 2005–2007.

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

Figure 15 shows invasive cervical cancer incidence per 100,000 women by age group for the provinces combined for 2005 to 2008. The incidence rate was lowest for the 20–29 age group (4.1 per 100,000), increased for the 30–39 and 40–49 age groups (14.0 and 13.9 per 100,000, respectively), then decreased for the older age groups (11.6 per 100,000 for the 50–59 age group and 10.9 per 100,000 for the 60–69 age group).

Figure 15

Invasive cervical cancer* incidence per 100,000 by age group, provinces combined, 2005–2008



Notes: Includes AB, BC, MB, NB, NL, NS, ON and SK.

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

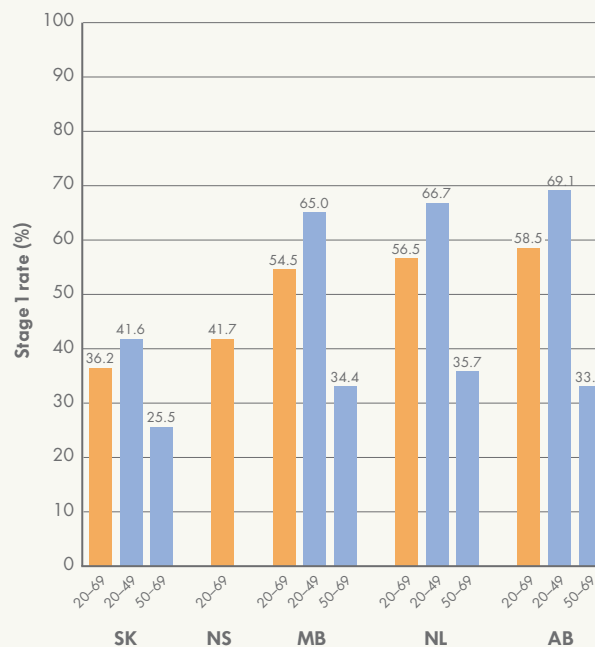
Cancers Diagnosed at Stage I

Cancers diagnosed at stage I are the percentage of invasive cervical cancers that were diagnosed at stage I using the International Federation of Gynecology and Obstetrics (FIGO) stage classification system. In a stage I cervical cancer, the cancer cells have grown from the surface layer of the cervix into deeper cervical tissues, and while the cancer may also be growing into the body of the uterus, it has not grown outside of it.

Figure 16 shows the percentage of invasive cervical cancers detected at stage I by province and age group for 2005 to 2008. The percentage of stage I cancers for women 20–69 ranged from 36.2% to 58.5%. Women 20–49 years of age had a higher percentage of stage I cancers than women 50–69 years of age in every province.

Figure 16

Percentage of invasive cervical cancers* detected at stage I by province and age group, 2005 to 2008



Notes: NS provided data for 2007 and 2008 for the combined age group 20–69.

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

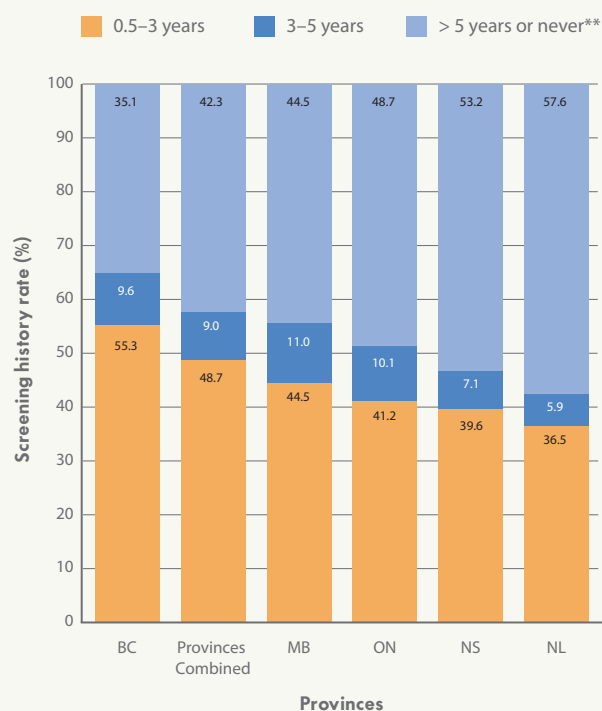
Screening History in Cases of Invasive Cancer

Screening history in cases of invasive cancer is a retrospective summary of screening prior to diagnosis. Screening history is measured by the percentage of women diagnosed with invasive cervical cancer whose last Pap test was six months to less than three years, three to five years, or greater than five years before the date of cancer diagnosis. Greater than five years includes women who had no record of a Pap test or who had a Pap test during the six months before diagnosis, as this Pap test was most likely performed for diagnostic not screening purposes.

Figure 17 shows the percentage of women 20–69 years of age diagnosed with invasive cervical cancer since the last screening Pap test by province for 2005 to 2008. Overall, 48.7% of women had a Pap test six months to three years before diagnosis; 9% had a Pap test three to five years before diagnosis; and 42.3% had a Pap test greater than five years before diagnosis.

Figure 17

Percentage of women 20–69 years of age diagnosed with invasive cervical cancer* since last screening Pap test by province, 2005–2008



Notes: ON provided data for 2008 only and >5 years included >5 to 10 years. Provinces combined include NS, BC, MB and NL.

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

** The greater than five or never category includes women whose Pap tests were greater than five years prior to diagnosis, who had no record of any Pap tests, or whose Pap tests occurred during the six months prior to diagnosis and were therefore considered diagnostic Pap tests.

DISCUSSION

This report presents outcomes for twelve cervical cancer screening program performance indicators. The results provide baseline data from across Canada as well as information about data completeness and availability. Data availability is related to many factors including the extent of program organization in each province, data accessibility, human resource issues, information technology availability and time constraints.

Across Canada, cervical cancer screening participation and retention is high. However, additional information is needed about women with lower rates of participation and retention and targeted initiatives to encourage screening may be required. The literature suggests that participation and retention are influenced by various factors including socio-economic status, perception of risk, screening acceptability, accessibility and the availability of invitation and recall systems.

Specimen adequacy and screening test results vary across the country and may be influenced by cytology preparation type (conventional or LBC) as well as variations in the cervical abnormality rate in the population, specimen collection, interpretation and reporting criteria.

The cytology turnaround time provides information on how well screening is functioning as a part of the health care system. The time required to process a Pap test may be influenced by the availability of personnel or resources in each province, the volume of Pap tests and the capacity to address increased screening participation. Limited information was available on the colposcopy follow-up rate, biopsy rate, and cytology-histology agreement which relates to the availability and completeness of colposcopy and histology information.

The pre-cancer detection rate, invasive cervical cancer incidence and screening history for women diagnosed with invasive cervical cancer provide important feedback on screening outcomes. Unfortunately, limited data was available on the detection rate of pre-cancerous lesions. Finally, almost half of women diagnosed with invasive cervical cancer had either not had a Pap test in the previous five years or had never had a Pap test. Had these women been screened, many of these cancers could have been prevented.

CHALLENGES AND FUTURE DIRECTIONS

Several key challenges were identified throughout the process of compiling cervical screening information from across Canada. For example, data is incomplete from many provinces and territories. This issue must be addressed, as reliable, valid, available and accessible screening information is essential to monitor cervical cancer screening in Canada. In addition, there is wide variability in some indicators that may have been influenced by factors such as the extent of program organization, available data and adequate resources as well as other unknown factors.

Over the next few years, the use of HPV testing and the implementation of HPV vaccination programs across the country will have a significant impact on cervical cancer

screening. HPV vaccination and testing will influence screening guidelines and may indirectly alter Pap test performance, making it important to monitor performance indicators by HPV vaccination status and HPV testing outcomes. To do so, cervical cancer screening data will need to be linked to HPV immunization and HPV test data. The establishment of comprehensive and integrated information systems to optimize the benefits of screening and vaccination is desirable.

The next step in the process of monitoring cervical cancer screening program performance is the review and revision of the indicators to reflect changes in cervical cancer control and the development of a second report. Through this project and other initiatives, the PCCSI and the Partnership will continue to support the development of provincial- and territorial-organized cervical cancer screening programs.



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APPENDIX A – Working Group Membership, 2010–11

The working group included the following members:

- Kathleen Decker (Canadian Partnership Against Cancer – Chair)
- Meg McLachlin (Pan-Canadian Cervical Screening Initiative)
- Lisa Kan (British Columbia Cancer Agency)
- Joanne Rose (Cervical Screening Initiatives Program, Newfoundland and Labrador)
- Jay Onysko (Public Health Agency of Canada)
- Rukshanda Ahmad (Public Health Agency of Canada)
- Karen Atkin (Cancer Care Ontario)
- Patricia Goggin (Institut national de santé publique du Québec)
- Verna Mai (Canadian Partnership Against Cancer)
- Susan Fekete (Canadian Partnership Against Cancer)
- Mary Anne Zupancic (Canadian Partnership Against Cancer)

The data group included the following members:

- Kathleen Decker (Canadian Partnership Against Cancer – Chair)
- Jeremy Hamm (British Columbia Cancer Agency)
- Song Gao (Alberta Health Services)
- Riaz Alvi (Saskatchewan Cancer Agency)
- Tong Zhu (Saskatchewan Cancer Agency)
- Natalie Biswanger (CancerCare Manitoba)
- Raymond Przybysz (Cancer Care Ontario)
- Bin Zhang (New Brunswick Department of Health)
- Beth Halfyard (Centre for Health Information, Newfoundland and Labrador)
- Sarah MacDonald (Cancer Care Nova Scotia)
- Sharon Fung (Canadian Partnership Against Cancer)
- Jin Niu (Canadian Partnership Against Cancer)
- Gina Lockwood (Canadian Partnership Against Cancer)
- Mary Anne Zupancic (Canadian Partnership Against Cancer)

APPENDIX B –

Cervical cancer screening programs in Canada

Snap Shot of Program Elements (As of June 2011)	YT	NT	NU	BC	AB	SK	MB	ON	QC	NB	NS	PI	NL
Type of Program S – Spontaneous PO – Partially Organized O – Organized	S	S	S	PO	PO	O (2009)	O (2010)	PO	S	S	PO	PO	PO
Program Launched/ Announced				1960	2000	2003	1999	2000			1991		2003
Start Screening	BCCA guidelines	3 years post sexual debut or age 21		Shortly following sexual activity	21 or 3 years after becoming sexually active, whichever occurs later	18	3 years following sexual activity	Within 3 years of sexual activity	Guidelines to be released in September 2011	21 or 3 years after first intimate sexual activity, whichever occurs later	Within 3 years of first vaginal sexual activity or at age 21, whichever occurs first	18 or within 3 years of onset of sexual activity	Following sexual activity
Stop Screening	BCCA guidelines	Age 69		69 with 3 consecutive neg. tests	69 with 3 consecutive neg. tests	69	70 with 3 consecutive neg. tests in previous 10 years with no change in partner	70 with adequate screening in last 10 years	Guidelines to be released in September 2011	69 with 3 consecutive annual neg. tests in previous 10 years	75 with 3 or more neg. tests in previous 10 years	75, after 2 neg. tests in previous 10 years	No recommendation
Screening Interval		Triennial, then biennial if normal		Biennial after 3 normal	Triennial after 3 annual neg. tests	Triennial after 2 normal	Biennial	Biennial or triennial after 3 neg. tests	Guidelines to be released in September 2011	Biennial after 3 consecutive annual neg. tests and every 3 years when recall system is in place	Biennial after 3 normal	Biennial	Annual/changes pending 2011
Population-based Recruitment	No	No	No	No	Yes – for part of the province	Yes	Yes	Planning underway	No	No	No	No	No
Result Letters to Women	No	No	No	No – Results to provider	Yes	Yes	By request from women only	No	No	No	Pap screen history by request	No	No
Reminders for Follow up after Abnormal Pap	NA	Yes – Care providers	NA	Yes – Care providers	Yes – Care providers and woman	Yes – Care providers	Yes – Care providers and woman	No	No	Not at this time	Yes – Care providers	No	Yes – Care providers

Snap Shot of Program Elements (As of June 2011)	YT	NT	NU	BC	AB	SK	MB	ON	QC	NB	NS	PI	NL
Conventional (C) Liquid-based Cytology (LBC)	C	LBC	LBC	C	B	C	C	B	C	B	C	C	LBC
Both (B)													
HPV Testing for ASC-US Triage or for Primary Screening	Neither	ASC-US triage	Neither	ASC-US triage and primary screening	Neither	Neither	Neither	ASC-US triage	Neither	ASC-US triage	Neither	Neither	ASC-US triage
Administration													
Tracking of Positive Screens and Appropriate Follow-up				✓	✓	✓	✓	Underway			✓	✓	
Recall System to Health Care Providers for Overdue Pap Tests				✓	✓	✓	✓				✓	✓	✓
Information Systems													
Population-based					✓	✓	✓						
Cytology				✓	✓	✓	✓	✓					✓
Histology				✓		✓							✓
Colposcopy				✓	✓	✓	✓						✓
Quality Assurance													
Screening Guidelines		Revised March 2010		✓	✓	Revising ✓	Revising ✓	Updating 2011 ✓	Proposed plan to implement 2011	Approved (adapted from AB and ON)	✓	Revised 2010	Updating ✓
Program Report with Indicators				✓			✓			✓			
Training Manuals				✓			✓	✓	Developing nursing screening tools		✓		✓

APPENDIX C —

Data definitions

Indicator (For women 20–69 years of age)	Calculation	Notes
<p>1. Participation Rate – Percentage of eligible women in the target population with at least one Pap test in a three-year period.</p>	<p>Numerator – Number of women with at least one Pap test in a three-year period.</p> <p>By ten-year age groups (20–29, 30–39, 40–49, 50–59, 60–69) and for ages 15–19.</p>	<ul style="list-style-type: none"> • Use the first Pap test that occurs in the three-year time period. • Use the date the Pap test was performed.¹ • Time periods – Jan. 1, 2004 to Dec. 31, 2006, Jan. 1, 2005 to Dec. 31, 2007 and Jan. 1, 2006 to Dec. 31, 2008. • Do not exclude women who have had a cervical cancer diagnosis. • Exclude women who have had a hysterectomy if possible and note methodology. • Calculate age at Pap test date.
	<p>Denominator – Number of women in the target population at year two.</p>	<ul style="list-style-type: none"> • Define population using Statistics Canada population estimates at year two (Jan. 1, 2005, Jan. 1, 2006 and Jan. 1, 2007). • Do not exclude women who have had a cervical cancer diagnosis. • Exclude women who have had a hysterectomy if possible. • Calculate 10-year age specific rates. • Calculate an age standardized rate for the 20–69 age group standardized to the 1991 Canadian population.

¹ If the date that the Pap test was performed is not available, use the date the Pap test was processed by the lab.

2. Retention Rate – Percentage of eligible women re-screened within three years following a negative Pap test in a 12-month period.	Numerator – Number of women who had a subsequent Pap test within three years of the index Pap test with a negative result. By ten-year age groups (20–29, 30–39, 40–49, 50–59, 60–69).	<ul style="list-style-type: none"> • The index Pap test is the last Pap test in the 12-month period. • Use the date the Pap test was performed.² • Time periods - Include women who had a negative Pap test in 2004 and follow-up for three years from the date of the Pap test; women who had a negative Pap test in 2005 and follow-up for three years from the date of the Pap test. • Calculate the woman’s age when the index Pap test with a negative result was performed.
	Denominator – Number of women with a negative Pap test in a 12-month period.	<ul style="list-style-type: none"> • 12-month period is defined as Jan. 1, 2004 to Dec. 31, 2004 for the first time period and Jan. 1, 2005 to Dec. 31, 2005 for the second time period.
3. Specimen Adequacy – Percentage of test results that are reported as unsatisfactory in a 12-month period.	Numerator – Number of Pap tests with an unsatisfactory result. By ten-year age groups (20–29, 30–39, 40–49, 50–59, 60–69).	<ul style="list-style-type: none"> • Use calendar year – 2005, 2006, 2007 and 2008. • Count each unsatisfactory Pap test because this indicator is Pap test not woman-based. • Calculate age when the unsatisfactory Pap test was performed. If more than one Pap test was unsatisfactory, calculate age at the time of each Pap test. • Use the date the Pap test was performed. • Identify whether or not cytology is conventional or LBC. • If both conventional and LBC are used, separate results by type of cytology. • If type of cytology is unknown, complete unknown cytology category.
	Denominator – Total number of Pap tests.	<ul style="list-style-type: none"> • The total number of Pap tests for each year (some women will have more than one Pap test in each year).

² If the date that the Pap test was performed is not available, use the date the Pap test was processed by the lab.

<p>4. Screening Test Results – Percentage of women by their most severe Pap test result in a 12-month period.</p>	<p>Numerator – Number of women with a negative, ASC-US, LSIL, AGC, ASC-H, HSIL or more severe Pap test result.</p> <p>By ten-year age groups (20–29, 30–39, 40–49, 50–59, 60–69).</p>	<ul style="list-style-type: none"> Count the number of women. For calendar years 2005, 2006, 2007 and 2008. Use the date the index Pap test was performed with the most severe result in that year. Define severity as Negative < ASC-US < LSIL < AGC < ASC-H < HSIL or more severe. Use the cytology diagnostic category map. If there are two Pap tests of the same severity, choose the first. Calculate age using the date the Pap test was performed that had the most severe result.
	<p>Denominator – Total number of women with a satisfactory Pap test result.</p>	<ul style="list-style-type: none"> Count the most severe satisfactory Pap test.
<p>5. Cytology Turnaround Time – The median number of calendar days from the date the Pap test is taken to the date the Pap test report is issued by the lab over a 12-month period.</p>	<p>Numerator: The median number of calendar days from the date the Pap test is taken to the date the Pap test report is issued by the lab.</p>	<ul style="list-style-type: none"> For calendar years 2005, 2006, 2007 and 2008. Use the number of days between each Pap test (performed) in the calendar year and the subsequent Pap test lab report date. Include unsatisfactory Pap tests.
	<p>Denominator: N/A.</p>	

<p>6. Colposcopy Follow-up Rate – Percentage of women with a high-grade Pap test result (ASC-H/ HSIL+) who had follow-up colposcopy examination within three, six, nine, 12 months subsequent to the index Pap test.</p>	<p>Numerator – Number of women who had a colposcopy within three, six, nine, 12 months of a Pap test with an ASC-H/ HSIL+ result.</p> <p>By ten-year age groups (20–29, 30–39, 40–49, 50–59, 60–69).</p>	<ul style="list-style-type: none"> • Use calendar years 2005, 2006, 2007 and 2008. • Use the date the Pap test with the ASC-H /HSIL+ result was performed. The Pap test should be performed in the calendar year of interest but the colposcopy can be performed in the next calendar year. • The colposcopy date is the date the first colposcopy is performed after the date the Pap test was performed. • Exclude all colposcopies that were performed within seven days of the Pap test. • Calculate the woman’s age at the date the Pap test with the ASC-H / HSIL+ result was performed. • 0–3 months (1 to 90 days). • 3–6 months (91 to 182 days). • 6–9 months (183 to 274 days). • 9–12 months (275 to 365 days).
	<p>Denominator – Total number of women with a high-grade Pap test result (ASC-H/ HSIL+) reported in a 12-month period.</p>	<ul style="list-style-type: none"> • For calendar years 2005, 2006, 2007, 2008.

<p>7. Biopsy Rate – Percentage of women with a high-grade Pap test (ASC-H/ HSIL+) who had a biopsy within the following 12 months.</p>	<p>Numerator – Number of women with a histological investigation within 12 months of the ASC-H/ HSIL+ cytological finding.</p> <p>By ten-year age groups (20–29, 30–39, 40–49, 50–59, 60–69).</p>	<ul style="list-style-type: none"> • For calendar years 2005, 2006, 2007, 2008. • Use the date the Pap test with an ASC-H /HSIL+ finding was performed. • The Pap test should be performed in the calendar year of interest but the biopsy can be performed in the next calendar year. • Calculate the woman’s age at the date the Pap test with the ASC-H / HSIL+ result was performed. • A histological investigation includes any cervical pathology report (including cervical, vaginal and endo-cervical). • Include women who had a biopsy without histological result. • If biopsy is performed within seven days of the Pap test, exclude.
	<p>Denominator – Number of women with a cytological finding of ASC-H/ HSIL+ in a 12-month period.</p>	<ul style="list-style-type: none"> • For calendar years 2005, 2006, 2007 and 2008.

<p>8. Cytology-Histology Agreement – Percentage of high-grade Pap test results (ASC-H and HSIL+) that had a histological confirmation of CIN II+ and CIN III+.</p>	<p>Numerator – Number of Pap tests with an ASC-H/ HSIL+ result that had a histological confirmation of CIN III+ within 12 months of the ASC-H/HSIL+ Pap test.</p> <p>Number of Pap tests with an ASC-H/ HSIL+ result that had a histological confirmation of CIN II+ (CIN II or greater) within 12 months of the ASC-H/ HSIL+ Pap test.</p>	<ul style="list-style-type: none"> • Use calendar years 2005, 2006, 2007 and 2008. • Use the date the Pap test with the ASC-H/ HSIL+ result was performed. • The Pap test should be performed in the calendar year of interest but the biopsy can be performed in the next calendar year. • Use the cytology diagnostic category map. • CIN II = moderate dysplasia. • CIN III+ = severe dysplasia, carcinoma in situ and invasive cancer.
	<p>Denominator – Number of Pap tests with an ASC-H/HSIL+ result that had a histological work-up within 12 months of the ASC-H/ HSIL+ Pap test.</p>	<ul style="list-style-type: none"> • Use calendar years 2005, 2006, 2007 and 2008. • A histology result includes any cervical, vaginal or endo-cervical histology result.
<p>9. Pre-cancer Detection Rate – Number of pre-cancerous lesions detected per 1,000 women who had a Pap test in a 12-month period.</p>	<p>Numerator – Number of women with histology CIN II or CIN III.</p> <p>By ten-year age groups (20–29, 30–39, 40–49, 50–59, 60–69).</p>	<ul style="list-style-type: none"> • For calendar years 2005, 2006, 2007 and 2008. • Use the most severe biopsy that was performed. • Year is defined by the Pap test date. • Use the age at the date the Pap test was performed. • Histology must occur within 12 months of the Pap test. • CIN II/III includes moderate and severe dysplasia and CIS (it does not include AIS).
	<p>Denominator – Number of women who had at least one Pap test.</p>	<ul style="list-style-type: none"> • Use calendar years 2005, 2006, 2007 and 2008. • Use the date the Pap test was performed. Count each woman once. • If the woman had more than one Pap test, use the first Pap test.

<p>10. Cancer Incidence – Number of new cases of invasive cervical cancer per 100,000 women.</p>	<p>Numerator – Number of new cases of invasive cervical cancer. For 15–19, 20–69 and 70+ years of age. By 10 year age groups (15–19, 70+) for 2005–2008.</p>	<ul style="list-style-type: none"> • Use calendar years 2005, 2006, 2007 and 2008. • Invasive cervical cancers include squamous cell cancers, adenocarcinoma, adenosquamous and not classified; i.e., all cases with an ICD-O C53 topography code. • Define age as the woman’s age at diagnosis (pathology/biopsy).
	<p>Denominator – Provincial population for each age group.</p>	<ul style="list-style-type: none"> • Age-standardized incidence rates should be standardized to the 1991 Canadian population. • Define population using Statistics Canada population estimates at the mid-year (July 1, 2005, July 1, 2006, July 1, 2007 and July 1, 2008).
<p>11. Percentage of Cancers Detected at Stage I – Percentage of invasive cervical cancers diagnosed at stage 1 in a 12-month period (FIGO stage).</p>	<p>Numerator – Number of invasive cervical cancers diagnosed at stage 1. For two age groups: 20–49 and 50–69.</p>	<ul style="list-style-type: none"> • Timeframe – Jan. 1, 2005 to Dec. 31, 2008. • Map TNM to FIGO (T1=I, T1A=IA, T1a1=IA1, T1a2=IA2, T1b=IB, T1b1=IB1, T1b2=IB2) before submission. • Define age as the woman’s age at diagnosis (pathology/biopsy). • Invasive cervical cancers include squamous cell cancers, adenocarcinoma, adenosquamous and not classified; i.e., all cases with an ICD-O C53 topography code.
	<p>Denominator – Number of invasive cervical cancers.</p>	<ul style="list-style-type: none"> • Timeframe – Jan. 1, 2005 to Dec. 31, 2008.

<p>12. Screening History in Cases of Invasive Cancer – Percentage of women diagnosed with invasive cervical cancer since the time of the previous Pap test.</p>	<p>Numerator – Number of women diagnosed with invasive cervical cancer within 0.5–3 years of previous Pap test.</p> <p>Number of women diagnosed with invasive cervical cancer within >3–5 years of previous Pap test.</p> <p>Number of women diagnosed with invasive cervical cancer >5 years of previous Pap test (including women who have never had a Pap test).</p> <p>For women 20–69 years of age.</p>	<ul style="list-style-type: none"> • Use the date the Pap test was performed as opposed to the date registered or analyzed. • Calculate age based on the date of diagnosis of invasive cervical cancer. • If a woman has multiple Pap tests prior to a diagnosis of cancer, use the most recent Pap test. • Timeframe – Jan. 1, 2005 to Dec. 31, 2008. • Use the following 6 categories: <ol style="list-style-type: none"> 1. 0–0.5 years = 0 days to 182 days 2. 0.5–3 years = 183 days to 1095 days 3. >3–5 years = 1096 days to 1825 days 4. >5 years = 1826 days plus 5. Never = no Pap test recorded 6. Insufficient historical data • If a woman had a Pap test within 0–0.5 years and a Pap test 0.5–3 years or >3–5 years or >5 years, use the 0.5–3 or >3–5 or >5 Pap test— whichever comes first—instead of the 0–0.5 yr Pap test because the Pap test in the 0–0.5 year category is likely for diagnostic purposes and this indicator focuses on screening history. • Invasive cervical cancers include squamous cell cancers, adenocarcinoma, adenosquamous and not classified; i.e., all cases with an ICD-O C53 topography code.
	<p>Denominator – Total number of women diagnosed with invasive cervical carcinoma.</p>	

APPENDIX D –

Cytology codes

2001 Bethesda Cytology Codes

Code	Description
ASC-US	Atypical squamous cells of undetermined significance
LSIL	Low-grade squamous intraepithelial lesion
AGC	Atypical glandular cells
ASC-H	Atypical squamous cells – high grade
HSIL	High-grade squamous intraepithelial lesion

Saskatchewan Cytology Codes

Code	Description
ADC	Abnormal glandular cells representing adenocarcinoma are present.
AGC	Atypical glandular cells (AGC) not otherwise specified (NOS) are present.
AGCN	Atypical glandular cells not otherwise specified (NOS) favour neoplastic, are present.
AGEC	Atypical glandular cells (AGC) of endocervical origin are present.
AGECN	Atypical glandular cells of endocervical origin (AGC) favour neoplastic, are present.
AGEM	Atypical glandular cells (AGC) of endometrial origin are present.
AIS	Abnormal glandular cells representing endocervical adenocarcinoma in situ (AIS) are present.
ASA	Atypical squamous cells in a background of atrophy are present. A repeat specimen after hormonal therapy is recommended.
ASCU	Atypical squamous cells of undetermined significance (ASC-US) are present.

Code	Description
ASE	Atypical epithelial cells of undetermined significance are present—it is uncertain whether these cells are of squamous or glandular origin.
ASHG	Atypical squamous cells of undetermined significance (ASC-H) are present—cannot exclude a high-grade squamous intraepithelial lesion (HSIL).
HSIL	A high-grade squamous intraepithelial lesion (HSIL) is present.
LSIL	A low-grade squamous intraepithelial lesion (LSIL) is present.
NAC	Negative for intraepithelial lesion or malignancy
NSIL	Negative for squamous intraepithelial lesion
PC2	Abnormal cells are present representing a squamous intraepithelial lesion (ungraded), but probably high grade.
PHS	Glandular cells are present in a woman who is of post-hysterectomy status.
PSCC	Abnormal cells are present, suspicious for squamous cell carcinoma.
SCC	Abnormal cells representing squamous cell carcinoma are present.

APPENDIX E —

Supplementary tables

Participation Rates – Hysterectomy Corrected

Percentage of women who had at least one Pap test

Province	Age Group	2004–2006			2005–2007			2006–2008		
		Number of Women who had a Pap Test	Population	Percent (%)	Number of Women who had a Pap Test	Population	Percent (%)	Number of Women who had a Pap Test	Population	Percent (%)
Provinces Combined	20–69	912,360	1,143,325	79.8	924,715	1,157,517	79.9	3,663,721	4,946,001	74.1
	15–19	41,195	133,537	30.8	40,774	135,232	30.2	40,526	137,576	29.5
	20–29	194,944	277,072	70.4	197,927	281,509	70.3	837,048	1,147,809	72.9
	30–39	227,567	270,424	84.2	225,790	267,881	84.3	891,754	1,181,760	75.5
	40–49	239,018	278,924	85.7	237,924	278,356	85.5	938,211	1,240,511	75.6
	50–59	169,111	200,190	84.5	175,680	207,942	84.5	659,676	878,758	75.1
	60–69	81,720	116,715	70.0	87,394	121,829	71.7	337,032	497,163	67.8
BC	20–69	912,360	1,143,325	79.8	924,715	1,157,517	79.9	936,585	1,176,792	79.6
	15–19	41,195	133,537	30.8	40,774	135,232	30.2	40,526	137,576	29.5
	20–29	194,944	277,072	70.4	197,927	281,509	70.3	201,687	287,490	70.2
	30–39	227,567	270,424	84.2	225,790	267,881	84.3	225,165	269,567	83.5
	40–49	239,018	278,924	85.7	237,924	278,356	85.5	236,156	277,343	85.1
	50–59	169,111	200,190	84.5	175,680	207,942	84.5	180,462	212,813	84.8
	60–69	81,720	116,715	70.0	87,394	121,829	71.7	93,115	129,579	71.9
ON	20–69	–	–	–	–	–	–	2,727,136	3,769,209	72.4
	15–19	–	–	–	–	–	–	–	–	–
	20–29	–	–	–	–	–	–	635,361	860,319	73.9
	30–39	–	–	–	–	–	–	666,589	912,193	73.1
	40–49	–	–	–	–	–	–	702,055	963,168	72.9
	50–59	–	–	–	–	–	–	479,214	665,945	72.0
	60–69	–	–	–	–	–	–	243,917	367,584	66.4

Participation Rates – Non-hysterectomy Corrected

Percentage of women who had at least one Pap test

Province†	Age Group	2004–2006			2005–2007			2006–2008		
		Number of Women who had a Pap Test	Population	Percent (%)	Number of Women who had a Pap Test	Population	Percent (%)	Number of Women who had a Pap Test	Population	Percent (%)
Provinces Combined	20–69	1,122,331	1,593,861	70.4	1,137,063	1,614,218	70.4	1,029,427	1,462,448	70.4
	15–19	51,572	107,316	48.1	51,542	108,022	47.7	43,321	92,509	46.8
	20–29	268,248	330,461	81.2	270,954	333,540	81.2	248,992	309,724	80.4
	30–39	264,385	334,341	79.1	264,603	333,415	79.4	238,050	301,529	78.9
	40–49	284,457	401,866	70.8	283,535	399,873	70.9	250,226	353,083	70.9
	50–59	203,240	326,555	62.2	211,199	338,406	62.4	192,243	304,825	63.1
	60–69	102,001	200,638	50.8	106,772	208,984	51.1	99,916	193,287	51.7
AB	20–69	314,652	426,276	73.8	330,280	441,013	74.9	345,214	457,185	75.5
	15–19	11,137	17,005	65.5	11,607	17,283	67.2	12,087	17,998	67.2
	20–29	76,423	93,813	81.5	80,331	97,286	82.6	84,370	102,032	82.7
	30–39	80,727	99,614	81.0	84,387	102,640	82.2	88,053	106,587	82.6
	40–49	81,405	111,242	73.2	83,488	111,968	74.6	84,958	112,568	75.5
	50–59	52,177	79,011	66.0	56,462	84,296	67.0	60,425	87,897	68.7
	60–69	23,920	42,596	56.2	25,612	44,823	57.1	27,408	48,101	57.0
MB	20–69	256,913	367,793	69.9	258,999	370,564	69.9	261,365	374,876	69.7
	15–19	20,191	41,864	48.2	20,295	42,683	47.5	20,590	43,268	47.6
	20–29	60,412	77,473	78.0	60,747	77,959	77.9	61,298	79,235	77.4
	30–39	58,239	75,863	76.8	57,684	74,995	76.9	57,685	75,269	76.6
	40–49	64,118	90,546	70.8	63,912	90,095	70.9	63,126	89,013	70.9
	50–59	48,263	76,075	63.4	49,911	78,011	64.0	51,120	79,258	64.5
	60–69	25,881	47,836	54.1	26,745	49,504	54.0	28,136	52,101	54.0
NL	20–69	120,760	177,728	67.9	120,895	177,323	68.2	–	–	–
	15–19	9,148	17,186	53.2	8,896	16,663	53.4	–	–	–
	20–29	26,581	31,756	83.7	26,016	30,863	84.3	–	–	–
	30–39	29,320	36,941	79.4	28,505	35,810	79.6	–	–	–
	40–49	30,455	44,018	69.2	30,324	43,656	69.5	–	–	–
	50–59	24,144	40,479	59.6	24,933	40,851	61.0	–	–	–
	60–69	10,260	24,534	41.8	11,117	26,143	42.5	–	–	–
NS	20–69	230,405	317,916	72.5	229,373	319,642	71.8	225,360	320,672	70.3
	15–19	11,096	31,261	35.5	10,744	31,393	34.2	10,644	31,243	34.1
	20–29	50,015	60,152	83.1	49,360	59,921	82.4	48,237	59,887	80.5
	30–39	53,136	63,318	83.9	51,962	62,047	83.7	50,461	60,898	82.9
	40–49	58,743	80,003	73.4	57,649	79,410	72.6	55,581	78,096	71.2
	50–59	44,750	69,236	64.6	44,970	71,069	63.3	44,786	71,754	62.4
	60–69	23,761	45,207	52.6	25,432	47,195	53.9	26,295	50,037	52.6

Province†	Age Group	2004–2006			2005–2007			2006–2008		
		Number of Women who had a Pap Test	Population	Percent (%)	Number of Women who had a Pap Test	Population	Percent (%)	Number of Women who had a Pap Test	Population	Percent (%)
SK	20–69	199,601	304,148	65.6	197,516	305,676	64.6	197,488	309,715	63.8
	15–19	—	—	—	—	—	—	—	—	—
	20–29	54,817	67,267	81.5	54,500	67,511	80.7	55,087	68,570	80.3
	30–39	42,963	58,605	73.3	42,065	57,923	72.6	41,851	58,775	71.2
	40–49	49,736	76,057	65.4	48,162	74,744	64.4	46,561	73,406	63.4
	50–59	33,906	61,754	54.9	34,923	64,179	54.4	35,912	65,916	54.5
	60–69	18,179	40,465	44.9	17,866	41,319	43.2	18,077	43,048	42.0

† AB provided data for age 18–19 rather than 15–19. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Retention Rates

Percentage of women re-screened within three years following a negative Pap test

Province†	Age Group	2004			2005			2004–2005		
		Re-screen	Pap Test	Percent (%)	Re-screen	Pap Test	Percent (%)	Re-screen	Pap Test	Percent (%)
Provinces Combined	20–69	1,824,974	2,282,170	80.0	1,837,495	2,319,452	79.2	3,662,469	4,601,622	79.6
	20–29	417,508	508,075	82.2	410,355	503,575	81.5	827,863	1,011,650	81.8
	30–39	482,536	598,028	80.7	459,997	574,243	80.1	942,533	1,172,271	80.4
	40–49	471,173	588,461	80.1	480,010	604,652	79.4	951,183	1,193,113	79.7
	50–59	315,031	396,261	79.5	336,576	427,769	78.7	651,607	824,030	79.1
	60–69	138,726	191,345	72.5	150,557	209,213	72.0	289,283	400,558	72.2
AB	20–69	124,001	142,826	86.8	134,512	153,855	87.4	258,513	296,681	87.1
	20–29	25,257	28,680	88.1	27,790	31,375	88.6	53,047	60,055	88.3
	30–39	33,701	38,320	87.9	35,904	40,682	88.3	69,605	79,002	88.1
	40–49	34,534	39,832	86.7	36,366	41,637	87.3	70,900	81,469	87.0
	50–59	21,392	24,790	86.3	24,075	27,542	87.4	45,467	52,332	86.9
	60–69	9,117	11,204	81.4	10,377	12,619	82.2	19,494	23,823	81.8
BC	20–69	358,640	452,080	79.3	349,948	448,191	78.1	708,588	900,271	78.7
	20–29	76,007	96,468	78.8	75,123	96,337	78.0	151,130	192,805	78.4
	30–39	96,291	120,467	79.9	89,689	114,189	78.5	185,980	234,656	79.3
	40–49	96,975	121,148	80.0	92,317	117,205	78.8	189,292	238,353	79.4
	50–59	63,671	78,616	81.0	65,628	82,557	79.5	129,299	161,173	80.2
	60–69	25,696	35,381	72.6	27,191	37,903	71.7	52,887	73,284	72.2

Province†	Age Group	2004			2005			2004–2005		
		Re-screen	Pap Test	Percent (%)	Re-screen	Pap Test	Percent (%)	Re-screen	Pap Test	Percent (%)
MB	20–69	116,242	143,676	80.9	115,613	142,453	81.2	231,855	286,129	81.0
	20–29	28,693	33,970	84.5	28,176	33,393	84.4	56,869	67,363	84.4
	30–39	27,135	33,636	80.7	26,571	32,566	81.6	53,706	66,202	81.1
	40–49	28,308	35,164	80.5	27,997	34,813	80.4	56,305	69,977	80.5
	50–59	21,369	26,611	80.3	21,932	27,395	80.1	43,301	54,006	80.2
	60–69	10,737	14,295	75.1	10,937	14,286	76.6	21,674	28,581	75.8
NL	20–69	57,738	70,605	81.8	–	–	–	57,738	70,605	81.8
	20–29	13,094	15,772	83.0	–	–	–	13,094	15,772	83.0
	30–39	14,963	17,781	84.2	–	–	–	14,963	17,781	84.2
	40–49	14,635	17,779	82.3	–	–	–	14,635	17,779	82.3
	50–59	11,113	13,881	80.1	–	–	–	11,113	13,881	80.1
	60–69	3,933	5,392	72.9	–	–	–	3,933	5,392	72.9
NS	20–69	116,184	137,455	84.5	114,738	138,196	83.0	230,922	275,651	83.8
	20–29	26,805	31,077	86.3	26,428	30,974	85.3	53,233	62,051	85.8
	30–39	29,738	34,388	86.5	28,448	33,483	85.0	58,186	67,871	85.7
	40–49	29,388	34,807	84.4	29,342	35,302	83.1	58,730	70,109	83.8
	50–59	20,577	24,840	82.8	20,672	25,539	80.9	41,249	50,379	81.9
	60–69	9,676	12,343	78.4	9,848	12,898	76.4	19,524	25,241	77.4
ON	20–69	970,428	1,226,170	79.1	1,046,180	1,333,982	78.4	2,016,608	2,560,152	78.8
	20–29	225,321	273,877	82.3	231,424	284,351	81.4	456,745	558,228	81.8
	30–39	262,125	328,914	79.7	262,460	330,703	79.4	524,585	659,617	79.5
	40–49	246,835	312,316	79.0	275,116	350,257	78.5	521,951	662,573	78.8
	50–59	162,887	208,667	78.1	190,619	246,460	77.3	353,506	455,127	77.7
	60–69	73,260	102,396	71.5	86,561	122,211	70.8	159,821	224,607	71.2
SK	20–69	81,741	109,358	74.7	76,504	102,775	74.4	158,245	212,133	74.6
	20–29	22,331	28,231	79.1	21,414	27,145	78.9	43,745	55,376	79.0
	30–39	18,583	24,522	75.8	16,925	22,620	74.8	35,508	47,142	75.3
	40–49	20,498	27,415	74.8	18,872	25,438	74.2	39,370	52,853	74.5
	50–59	14,022	18,856	74.4	13,650	18,276	74.7	27,672	37,132	74.5
	60–69	6,307	10,334	61.0	5,643	9,296	60.7	11,950	19,630	60.9

†ON provided data for 2003 and 2006 that were included as proxies for 2004 and 2005, respectively. ON provided data for approximately 85% of all Pap tests performed in the province.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). Therefore, women may have had a Pap test in another area of the province under-estimating the retention rate.

Specimen Adequacy Rates

Percentage of Pap test results reported as unsatisfactory

Type of Tests	Province†	Age Group	2005			2006			2007			2008			2007–2008		
			Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)
Conventional	AB	20–49	1,414	186,966	0.8	2,468	203,693	1.2	3,597	217,302	1.7	–	–	–	3,597	217,302	1.7
		20–29	359	43,803	0.8	558	47,001	1.2	604	50,321	1.2	–	–	604	50,321	1.2	
		30–39	371	50,428	0.7	622	54,433	1.1	875	57,600	1.5	–	–	875	57,600	1.5	
		40–49	249	48,628	0.5	414	51,957	0.8	688	53,568	1.3	–	–	688	53,568	1.3	
		50–59	270	31,781	0.8	554	36,040	1.5	924	39,139	2.4	–	–	924	39,139	2.4	
		60–69	165	12,326	1.3	320	14,262	2.2	506	16,674	3.0	–	–	506	16,674	3.0	
	BC	20–49	5,688	515,372	1.1	8,300	526,907	1.6	10,017	522,806	1.9	11,694	521,322	2.2	21,711	1,044,128	2.1
		20–29	1,356	116,754	1.2	1,915	119,661	1.6	2,205	119,583	1.8	2,568	121,764	2.1	4,773	241,347	2.0
		30–39	1,508	132,777	1.1	2,148	133,204	1.6	2,547	129,700	2.0	2,833	127,646	2.2	5,380	257,346	2.1
		40–49	1,014	132,760	0.8	1,511	134,320	1.1	1,699	129,742	1.3	2,051	125,924	1.6	3,750	255,666	1.5
		50–59	1,063	91,734	1.2	1,683	96,158	1.8	2,123	96,844	2.2	2,537	97,437	2.6	4,660	194,281	2.4
		60–69	747	41,347	1.8	1,043	48,564	2.4	1,443	46,937	3.1	1,705	48,551	3.5	3,148	95,488	3.3
	MB	20–49	3,358	168,436	2.0	3,798	173,707	2.2	3,782	172,195	2.2	4,305	172,452	2.5	8,087	344,647	2.3
		20–29	973	43,656	2.2	1,176	44,899	2.6	1,204	44,423	2.7	1,325	45,041	2.9	2,529	89,464	2.8
		30–39	792	38,849	2.0	914	39,509	2.3	900	39,144	2.3	1,061	39,166	2.7	1,961	78,310	2.5
		40–49	670	39,587	1.7	690	40,209	1.7	767	39,104	2.0	844	38,073	2.2	1,611	77,177	2.1
		50–59	538	30,571	1.8	604	32,094	1.9	554	31,685	1.7	663	32,080	2.1	1,217	63,765	1.9
		60–69	385	15,773	2.4	414	16,996	2.4	357	17,839	2.0	412	18,092	2.3	769	35,931	2.1
	NL	20–49	1,217	80,767	1.5	–	–	–	–	–	–	–	–	–	–	–	–
		20–29	351	19,300	1.8	–	–	–	–	–	–	–	–	–	–	–	–
		30–39	299	19,913	1.5	–	–	–	–	–	–	–	–	–	–	–	–
		40–49	235	19,690	1.2	–	–	–	–	–	–	–	–	–	–	–	–
		50–59	220	15,587	1.4	–	–	–	–	–	–	–	–	–	–	–	–
		60–69	112	6,277	1.8	–	–	–	–	–	–	–	–	–	–	–	–

Type of Tests	2005			2006			2007			2008			2007–2008				
	Province [†]	Age Group	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)
NS	NS	20–69	1,128	158,576	0.7	1,183	157,979	0.7	1,146	146,013	0.8	967	140,234	0.7	2,113	286,247	0.7
		20–29	278	38,947	0.7	324	38,236	0.8	309	35,704	0.9	225	34,460	0.7	584	70,164	0.8
		30–39	288	38,736	0.7	273	37,802	0.7	281	34,507	0.8	189	32,379	0.6	470	66,886	0.7
		40–49	222	39,356	0.6	232	39,059	0.6	214	35,562	0.6	202	33,453	0.6	416	69,015	0.6
		50–59	221	27,789	0.8	226	28,539	0.8	210	26,434	0.8	205	25,766	0.8	415	52,200	0.8
		60–69	119	13,748	0.9	128	14,343	0.9	132	13,806	1.0	146	14,176	1.0	278	27,982	1.0
SK	SK	20–69	855	114,505	0.7	735	113,144	0.6	635	111,200	0.6	–	–	–	635	111,200	0.6
		20–29	272	32,741	0.8	250	32,267	0.8	205	32,285	0.6	–	–	–	205	32,285	0.6
		30–39	207	25,347	0.8	193	25,022	0.8	160	24,499	0.7	–	–	–	160	24,499	0.7
		40–49	171	27,369	0.6	98	26,448	0.4	99	24,841	0.4	–	–	–	99	24,841	0.4
		50–59	131	19,318	0.7	121	19,737	0.6	106	19,809	0.5	–	–	–	106	19,809	0.5
		60–69	74	9,730	0.8	73	9,670	0.8	65	9,766	0.7	–	–	–	65	9,766	0.7

[†]AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Type of Tests	2005			2006			2007			2008			2007–2008				
	Province [†]	Age Group	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)	Unsat- isfactory Tests	Total of Pap Tests	Percent (%)
LBC	ON	20–69	7,604	1,440,444	0.5	9,792	1,475,796	0.7	8,529	1,491,489	0.6	7,381	1,478,012	0.5	15,910	2,969,501	0.5
		20–29	1,149	331,644	0.3	1,388	337,770	0.4	1,268	337,340	0.4	1,009	334,558	0.3	2,277	671,898	0.3
		30–39	1,328	366,746	0.4	1,585	367,621	0.4	1,456	363,846	0.4	1,166	355,032	0.3	2,622	718,878	0.4
		40–49	1,153	368,085	0.3	1,374	377,830	0.4	1,249	378,902	0.3	1,115	370,330	0.3	2,364	749,232	0.3
		50–59	2,208	250,576	0.9	2,990	262,894	1.1	2,470	270,917	0.9	2,233	272,346	0.8	4,703	543,263	0.9
		60–69	1,766	123,393	1.4	2,455	129,681	1.9	2,086	140,484	1.5	1,858	145,746	1.3	3,944	286,230	1.4

[†]ON: From 2005 onwards, a large majority (more than 90%) of Ontario labs employed liquid cytology.

ON provided data for approximately 85% of all Pap tests performed in the province in 2005 and 87% between 2006 and 2008.

Type of Tests	Province†	Age Group	2005			2006			2007			2008			2007–2008		
			Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)
Mixed	AB	20–49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		20–29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		30–39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		40–49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		50–59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		60–69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NL	NL	20–49	-	-	-	1,361	79,717	1.7	416	77,919	0.5	-	-	-	416	77,919	0.5
		20–29	-	-	-	362	18,661	1.9	87	17,542	0.5	-	-	-	87	17,542	0.5
		30–39	-	-	-	363	19,298	1.9	85	18,284	0.5	-	-	-	85	18,284	0.5
		40–49	-	-	-	242	19,543	1.2	91	19,003	0.5	-	-	-	91	19,003	0.5
		50–59	-	-	-	221	15,501	1.4	94	15,743	0.6	-	-	-	94	15,743	0.6
		60–69	-	-	-	173	6,714	2.6	59	7,347	0.8	-	-	-	59	7,347	0.8

†AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). NL used conventional cytology exclusively until 2006. In 2007, they used a combination of conventional and liquid-based cytology.

Type of Tests	Province†	Age Group	2005			2006			2007			2008			2007–2008		
			Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)	Unsatisfactory Tests	Total of Pap Tests	Percent (%)
All Types	Provinces Combined	20–69	21,264	2,665,066	0.8	27,637	2,730,943	1.0	28,122	2,738,924	1.0	28,246	2,538,567	1.1	56,368	5,277,491	1.1
		20–29	4,738	626,845	0.8	5,973	638,495	0.9	5,882	637,198	0.9	5,841	589,110	1.0	11,723	1,226,308	1.0
		30–39	4,793	672,796	0.7	6,098	676,889	0.9	6,304	667,580	0.9	6,168	614,360	1.0	12,472	1,281,940	1.0
		40–49	3,714	675,475	0.5	4,561	689,366	0.7	4,807	680,722	0.7	4,940	621,804	0.8	9,747	1,302,526	0.7
		50–59	4,651	467,356	1.0	6,399	490,963	1.3	6,481	500,571	1.3	6,567	468,245	1.4	13,048	968,816	1.3
		60–69	3,368	222,594	1.5	4,606	235,230	2.0	4,648	252,853	1.8	4,730	245,048	1.9	9,378	497,901	1.9

†Provinces combined include AB, BC, MB, NL, NS, ON and SK. NL and SK provided data for 2005, 2006 and 2007.

ON provided data for approximately 85% of all Pap tests performed in the province in 2005 and 87% between 2006 and 2008.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Screening Test Results

Percentage of women by their most severe Pap test result

Year	Province†	Age Group	Satisfactory Pap Tests	Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
				Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
2005	Provinces Combined	20-29	2,369,362	2,257,176	95.3	56,076	2.4	36,345	1.5	4,410	0.2	4,000	0.2	11,355	0.5
		20-29	517,873	471,745	91.1	20,837	4.0	18,496	3.6	433	0.1	1,548	0.3	4,814	0.9
		30-39	576,873	551,151	95.5	12,620	2.2	7,756	1.3	944	0.2	1,106	0.2	3,296	0.6
		40-49	593,912	571,643	96.3	12,414	2.1	5,869	1.0	1,412	0.2	678	0.1	1,896	0.3
		50-59	410,901	399,697	97.3	6,598	1.6	2,436	0.6	1,076	0.3	361	0.1	733	0.2
		60-69	196,803	193,055	98.1	2,168	1.1	730	0.4	350	0.2	150	0.1	350	0.2
AB	20-69	20-29	173,137	165,084	95.3	3,136	1.8	3,641	2.1	308	0.2	212	0.1	756	0.4
		20-29	39,388	35,980	91.3	960	2.4	1,967	5.0	24	0.1	94	0.2	363	0.9
		30-39	45,808	43,933	95.9	740	1.6	805	1.8	54	0.1	56	0.1	220	0.5
		40-49	45,997	44,259	96.2	870	1.9	608	1.3	92	0.2	38	0.1	130	0.3
		50-59	30,189	29,401	97.4	421	1.4	211	0.7	106	0.4	18	0.1	32	0.1
		60-69	11,755	11,511	97.9	145	1.2	50	0.4	32	0.3	6	0.1	11	0.1
BC	20-69	20-29	478,004	451,908	94.5	14,180	3.0	5,537	1.2	1,878	0.4	1,018	0.2	3,483	0.7
		20-29	105,447	96,241	91.3	5,061	4.8	1,916	1.8	151	0.1	500	0.5	1,578	1.5
		30-39	121,360	115,114	94.9	3,272	2.7	1,324	1.1	389	0.3	273	0.2	988	0.8
		40-49	124,980	118,562	94.9	3,507	2.8	1,454	1.2	698	0.6	147	0.1	612	0.5
		50-59	86,904	83,618	96.2	1,830	2.1	682	0.8	494	0.6	69	0.1	211	0.2
		60-69	39,313	38,373	97.6	510	1.3	161	0.4	146	0.4	29	0.1	94	0.2
MB	20-69	20-29	148,389	139,384	93.9	3,877	2.6	2,815	1.9	200	0.1	419	0.3	1,694	1.1
		20-29	36,308	32,238	88.8	1,446	4.0	1,536	4.2	20	0.1	168	0.5	900	2.5
		30-39	33,744	31,788	94.2	875	2.6	581	1.7	34	0.1	93	0.3	373	1.1
		40-49	35,905	34,200	95.3	863	2.4	471	1.3	63	0.2	71	0.2	237	0.7
		50-59	27,955	27,009	96.6	533	1.9	164	0.6	56	0.2	63	0.2	130	0.5
		60-69	14,477	14,149	97.7	160	1.1	63	0.4	27	0.2	24	0.2	54	0.4

Year	Province†	Age Group	Satisfactory Pap tests	Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
				Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
NL		20-69	73,000	69,885	95.7	1,439	2.0	1,058	1.4	195	0.3	157	0.2	266	0.4
		20-29	-	-	-	-	-	-	-	-	-	-	-	-	-
		30-39	-	-	-	-	-	-	-	-	-	-	-	-	-
		40-49	-	-	-	-	-	-	-	-	-	-	-	-	-
		50-59	-	-	-	-	-	-	-	-	-	-	-	-	-
		60-69	-	-	-	-	-	-	-	-	-	-	-	-	-
NS		20-69	142,931	135,682	94.9	4,087	2.9	1,562	1.1	307	0.2	516	0.4	777	0.5
		20-29	33,353	30,139	90.4	1,641	4.9	948	2.8	32	0.1	219	0.7	374	1.1
		30-39	34,446	32,782	95.2	931	2.7	298	0.9	68	0.2	143	0.4	224	0.7
		40-49	36,187	34,759	96.1	914	2.5	203	0.6	97	0.3	99	0.3	115	0.3
		50-59	25,950	25,223	97.2	458	1.8	93	0.4	91	0.4	37	0.1	48	0.2
		60-69	12,995	12,779	98.3	143	1.1	20	0.2	19	0.1	18	0.1	16	0.1
ON		20-69	1,353,901	1,295,233	95.7	29,357	2.2	21,732	1.6	1,522	0.1	1,678	0.1	4,379	0.3
		20-29	303,377	277,147	91.4	11,729	3.9	12,129	4.0	206	0.1	567	0.2	1,599	0.5
		30-39	341,515	327,534	95.9	6,802	2.0	4,748	1.4	399	0.1	541	0.2	1,491	0.4
		40-49	350,843	339,863	96.9	6,260	1.8	3,133	0.9	462	0.1	323	0.1	802	0.2
		50-59	239,903	234,446	97.7	3,356	1.4	1,286	0.5	329	0.1	174	0.1	312	0.1
		60-69	118,263	116,243	98.3	1,210	1.0	436	0.4	126	0.1	73	0.1	175	0.1

†NL did not provide data by age group but were included in Provinces Combined 20-69.

ON follows a different severity order: negative < ASCUS < AGC < ASC-H < LSIL < HSIL and higher (includes CA).

ON provided data for approximately 85% of all Pap tests performed in the province in 2005. Approximately 0.01% of the Pap tests had an 'other abnormal cell' finding and were excluded from this calculation.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Year	Province†	Age Group	Satisfactory Pap Tests	Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
				Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
2006	Provinces Combined	20-69	1,046,328	995,947	95.2	24,715	2.4	14,065	1.3	2,366	0.2	2,385	0.2	6,900	0.7
		20-29	236,528	215,084	90.9	9,649	4.1	7,148	3.0	216	0.1	1,058	0.4	3,373	1.4
		30-39	256,367	244,518	95.4	5,717	2.2	3,149	1.2	464	0.2	634	0.2	1,885	0.7
		40-49	266,723	256,300	96.1	5,708	2.1	2,441	0.9	835	0.3	384	0.1	1,055	0.4
		50-59	196,224	191,088	97.4	2,828	1.4	1,062	0.5	634	0.3	188	0.1	424	0.2
		60-69	90,486	88,957	98.3	813	0.9	265	0.3	217	0.2	71	0.1	163	0.2
	AB	20-69	188,231	180,279	95.8	3,219	1.7	3,436	1.8	241	0.1	234	0.1	822	0.4
		20-29	42,067	38,354	91.2	1,188	2.8	1,969	4.7	22	0.1	106	0.3	428	1.0
		30-39	49,249	47,323	96.1	782	1.6	785	1.6	37	0.1	75	0.2	247	0.5
		40-49	49,188	47,718	97.0	786	1.6	480	1.0	64	0.1	29	0.1	111	0.2
		50-59	34,188	33,541	98.1	359	1.1	157	0.5	86	0.3	17	0.0	28	0.1
		60-69	13,559	13,343	98.6	104	0.8	45	0.3	32	0.2	7	0.1	8	0.1
	BC	20-69	491,238	468,278	95.3	12,504	2.5	4,806	1.0	1,421	0.3	981	0.2	3,248	0.7
		20-29	108,588	99,795	91.9	4,799	4.4	1,852	1.7	119	0.1	476	0.4	1,547	1.4
		30-39	122,313	116,857	95.5	2,876	2.4	1,147	0.9	273	0.2	270	0.2	890	0.7
		40-49	127,307	121,996	95.8	2,937	2.3	1,147	0.9	532	0.4	149	0.1	546	0.4
		50-59	91,511	88,810	97.0	1,516	1.7	540	0.6	385	0.4	61	0.1	199	0.2
		60-69	41,519	40,820	98.3	376	0.9	120	0.3	112	0.3	25	0.1	66	0.2
MB	20-69	152,297	142,599	93.6	4,134	2.7	3,027	2.0	195	0.1	469	0.3	1,873	1.2	
	20-29	36,942	32,532	88.1	1,579	4.3	1,637	4.4	15	0.0	192	0.5	987	2.7	
	30-39	34,013	31,872	93.7	956	2.8	603	1.8	43	0.1	105	0.3	434	1.3	
	40-49	36,381	34,519	94.9	953	2.6	501	1.4	53	0.1	91	0.3	264	0.7	
	50-59	29,364	28,431	96.8	469	1.6	224	0.8	56	0.2	55	0.2	129	0.4	
	60-69	15,597	15,245	97.7	177	1.1	62	0.4	28	0.2	26	0.2	59	0.4	
NL	20-69	72,108	69,103	95.8	1,243	1.7	1,203	1.7	144	0.2	147	0.2	268	0.4	
	20-29	16,112	14,663	91.0	528	3.3	740	4.6	20	0.1	60	0.4	101	0.6	
	30-39	17,214	16,463	95.6	281	1.6	281	1.6	37	0.2	41	0.2	111	0.6	
	40-49	18,010	17,499	97.2	282	1.6	111	0.6	57	0.3	29	0.2	32	0.2	
	50-59	14,504	14,288	98.5	112	0.8	57	0.4	19	0.1	11	0.1	17	0.1	
	60-69	6,268	6,190	98.8	40	0.6	14	0.2	11	0.2	6	0.1	7	0.1	

Year	Province†	Age Group	Satisfactory Pap Tests		Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
			Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
NS	20-69	142,454	95.3	3,615	2.5	1,593	1.1	365	0.3	504	0.4	689	0.5			
		32,819	90.6	1,555	4.7	950	2.9	40	0.1	224	0.7	310	0.9			
		33,578	95.3	822	2.4	333	1.0	74	0.2	143	0.4	203	0.6			
		35,837	96.5	750	2.1	202	0.6	129	0.4	86	0.2	102	0.3			
		26,657	97.6	372	1.4	84	0.3	88	0.3	44	0.2	51	0.2			
		13,563	98.5	116	0.9	24	0.2	34	0.3	7	0.1	23	0.2			

†AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Year	Province†	Age Group	Satisfactory Pap Tests		Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
			Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
2007	Provinces Combined	1,040,841	95.0	24,624	2.4	16,072	1.5	1,891	0.2	2,625	0.3	7,186	0.7			
		235,726	90.1	9,867	4.2	8,641	3.7	172	0.1	1,232	0.5	3,523	1.5			
		251,540	95.1	5,698	2.3	3,534	1.4	399	0.2	662	0.3	1,974	0.8			
		259,108	96.1	5,524	2.1	2,547	1.0	650	0.3	435	0.2	1,062	0.4			
		197,609	97.5	2,717	1.4	1,069	0.5	494	0.2	206	0.1	444	0.2			
		96,858	98.4	818	0.8	281	0.3	176	0.2	90	0.1	183	0.2			
AB	20-69	199,477	93.9	4,318	2.2	5,470	2.7	206	0.1	521	0.3	1,652	0.8			
		44,685	87.0	1,521	3.4	3,115	7.0	13	0.0	273	0.6	909	2.0			
		51,779	94.1	1,160	2.2	1,259	2.4	45	0.1	123	0.2	455	0.9			
		50,437	95.9	1,011	2.0	732	1.5	62	0.1	80	0.2	198	0.4			
		36,856	97.4	481	1.3	307	0.8	69	0.2	35	0.1	68	0.2			
		15,720	98.4	145	0.9	57	0.4	17	0.1	10	0.1	22	0.1			
BC	20-69	487,724	95.9	10,740	2.2	4,188	0.9	934	0.2	886	0.2	3,102	0.6			
		108,627	92.4	4,480	4.1	1,804	1.7	72	0.1	444	0.4	1,451	1.3			
		119,026	96.1	2,438	2.0	955	0.8	194	0.2	224	0.2	869	0.7			
		123,207	96.5	2,387	1.9	914	0.7	338	0.3	128	0.1	507	0.4			
		92,245	97.8	1,133	1.2	404	0.4	247	0.3	61	0.1	192	0.2			
		44,619	98.6	302	0.7	111	0.2	83	0.2	29	0.1	83	0.2			

Year	Province†	Age Group	Satisfactory Pap Tests		Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
			Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
	MB	20-69	151,023	93.6	4,444	2.9	3,075	2.0	165	0.1	525	0.3	1,481	0.3	729	1.0
		20-29	36,616	88.3	1,689	4.6	1,669	4.6	21	0.1	191	0.5	729	0.5	729	2.0
		30-39	33,729	93.6	991	2.9	636	1.9	29	0.1	137	0.4	373	0.4	373	1.1
		40-49	35,187	94.6	1,042	3.0	496	1.4	47	0.1	100	0.3	212	0.3	212	0.6
		50-59	29,041	96.7	535	1.8	209	0.7	47	0.2	67	0.2	114	0.2	114	0.4
		60-69	16,450	97.8	187	1.1	65	0.4	21	0.1	30	0.2	53	0.2	53	0.3
	NL	20-69	71,133	94.7	1,457	2.0	1,745	2.5	142	0.2	136	0.2	260	0.2	260	0.4
		20-29	15,163	87.7	604	4.0	1,075	7.1	15	0.1	73	0.5	104	0.7	104	0.7
		30-39	16,579	94.9	315	1.9	370	2.2	28	0.2	34	0.2	95	0.2	95	0.6
		40-49	17,606	96.6	301	1.7	199	1.1	49	0.3	13	0.1	32	0.1	32	0.2
		50-59	14,804	97.8	177	1.2	77	0.5	38	0.3	8	0.1	23	0.1	23	0.2
		60-69	6,981	98.4	60	0.9	24	0.3	12	0.2	8	0.1	6	0.1	6	0.1
NS	20-69	131,484	94.7	3,665	2.8	1,594	1.2	444	0.3	557	0.4	691	0.4	691	0.5	
	20-29	30,635	89.6	1,573	5.1	978	3.2	51	0.2	251	0.8	330	1.1	330	1.1	
	30-39	30,427	94.9	794	2.6	314	1.0	103	0.3	144	0.5	182	0.5	182	0.6	
	40-49	32,671	95.8	783	2.4	206	0.6	154	0.5	114	0.3	113	0.3	113	0.3	
	50-59	24,663	97.4	391	1.6	72	0.3	93	0.4	35	0.1	47	0.1	47	0.2	
	60-69	13,088	98.3	124	0.9	24	0.2	43	0.3	13	0.1	19	0.1	19	0.1	

†AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Year	Province†	Age Group	Satisfactory Pap Tests		Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
			Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
2008	Provinces Combined	20-69	2,363,707	95.4	2,255,131	2.2	40,163	1.7	2,642	0.1	3,932	0.2	9,984	0.2	9,984	0.4
		20-29	530,100	90.4	479,440	4.1	22,510	4.2	284	0.1	1,638	0.3	4,579	0.3	4,579	0.9
		30-39	564,925	95.6	540,262	2.1	8,507	1.5	538	0.1	1,078	0.2	2,904	0.2	2,904	0.5
		40-49	589,257	96.7	569,807	1.8	5,768	1.0	807	0.1	636	0.1	1,550	0.1	1,550	0.3
		50-59	445,539	97.7	435,342	1.3	2,567	0.6	678	0.2	401	0.1	664	0.1	664	0.1
60-69	233,886	98.5	230,280	0.9	811	0.3	335	0.1	179	0.1	287	0.1	287	0.1		

Year	Province†	Age Group	Satisfactory Pap Tests	Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
				Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
AB	20-69	20-29	208,378	197,554	94.8	3,469	1.7	5,544	2.7	165	0.1	395	0.2	1,251	0.6
		30-39	47,306	41,693	88.1	1,433	3.0	3,251	6.9	14	0.0	218	0.5	697	1.5
		40-49	54,138	51,536	95.2	920	1.7	1,207	2.2	32	0.1	112	0.2	331	0.6
		50-59	51,042	49,398	96.8	694	1.4	698	1.4	54	0.1	50	0.1	148	0.3
		60-69	38,432	37,707	98.1	321	0.8	296	0.8	43	0.1	9	0.0	56	0.1
		20-69	17,460	17,220	98.6	101	0.6	92	0.5	22	0.1	6	0.0	19	0.1
BC	20-69	20-29	486,442	471,567	96.9	8,356	1.7	3,179	0.7	512	0.1	577	0.1	2,251	0.5
		30-39	110,412	103,476	93.7	3,982	3.6	1,551	1.4	38	0.0	286	0.3	1,079	1.0
		40-49	117,494	113,915	97.0	1,914	1.6	716	0.6	111	0.1	156	0.1	682	0.6
		50-59	119,823	117,060	97.7	1,593	1.3	600	0.5	153	0.1	82	0.1	335	0.3
		60-69	92,660	91,428	98.7	688	0.7	249	0.3	145	0.2	34	0.0	116	0.1
		20-69	46,053	45,688	99.2	179	0.4	63	0.1	65	0.1	19	0.0	39	0.1
MB	20-69	20-29	151,286	141,702	93.7	4,627	3.1	3,091	2.0	134	0.1	395	0.3	1,337	0.9
		30-39	37,123	32,701	88.1	1,815	4.9	1,687	4.5	5	0.0	164	0.4	751	2.0
		40-49	33,547	31,422	93.7	1,011	3.0	654	1.9	23	0.1	99	0.3	338	1.0
		50-59	34,372	32,582	94.8	1,044	3.0	486	1.4	43	0.1	63	0.2	154	0.4
		60-69	29,494	28,559	96.8	583	2.0	206	0.7	35	0.1	48	0.2	63	0.2
		20-69	16,750	16,438	98.1	174	1.0	58	0.3	28	0.2	21	0.1	31	0.2
NS	20-69	20-29	126,333	119,270	94.4	3,876	3.1	1,703	1.3	350	0.3	519	0.4	615	0.5
		30-39	29,545	26,225	88.8	1,738	5.9	996	3.4	30	0.1	243	0.8	313	1.1
		40-49	28,696	27,163	94.7	816	2.8	339	1.2	90	0.3	138	0.5	150	0.5
		50-59	30,696	29,444	95.9	742	2.4	226	0.7	112	0.4	83	0.3	89	0.3
		60-69	23,967	23,254	97.0	436	1.8	113	0.5	83	0.3	37	0.2	44	0.2
		20-69	13,429	13,184	98.2	144	1.1	29	0.2	35	0.3	18	0.1	19	0.1
ON	20-69	20-29	1,391,268	1,325,038	95.2	31,527	2.3	26,646	1.9	1,481	0.1	2,046	0.1	4,530	0.3
		30-39	305,714	275,345	90.1	12,681	4.1	15,025	4.9	197	0.1	727	0.2	1,739	0.6
		40-49	331,050	316,226	95.5	6,975	2.1	5,591	1.7	282	0.1	573	0.2	1,403	0.4
		50-59	353,324	341,323	96.6	6,616	1.9	3,758	1.1	445	0.1	358	0.1	824	0.2
		60-69	260,986	254,394	97.5	3,859	1.5	1,703	0.7	372	0.1	273	0.1	385	0.1
		20-69	140,194	137,750	98.3	1,396	1.0	569	0.4	185	0.1	115	0.1	179	0.1

†ON follows a different severity order: negative < ASC-US < AGC < ASC-H < LSIL < HSIL and higher (includes CA). ON provided data for approximately 87% of all Pap tests performed in the province in 2008. Approximately 0.01% of the Pap tests had an 'other abnormal cell' finding and were excluded from this calculation.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Year	Province [†]	Age Group	Satisfactory Pop Tests	Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
				Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
2007–2008	Provinces Combined	20–69	3,404,548	3,243,574	95.3	76,479	2.2	56,235	1.7	4,533	0.1	6,557	0.2	17,170	0.5
		20–29	765,826	691,731	90.3	31,516	4.1	31,151	4.1	456	0.1	2,870	0.4	8,102	1.1
		30–39	816,465	779,535	95.5	17,334	2.1	12,041	1.5	937	0.1	1,740	0.2	4,878	0.6
		40–49	848,365	818,697	96.5	16,213	1.9	8,315	1.0	1,457	0.2	1,071	0.1	2,612	0.3
		50–59	643,148	628,021	97.6	8,604	1.3	3,636	0.6	1,172	0.2	607	0.1	1,108	0.2
		60–69	330,744	325,590	98.4	2,812	0.9	1,092	0.3	511	0.2	269	0.1	470	0.1
AB	20–69	20–69	407,855	384,864	94.4	7,787	1.9	11,014	2.7	371	0.1	916	0.2	2,903	0.7
		20–29	91,991	80,547	87.6	2,954	3.2	6,366	6.9	27	0.0	491	0.5	1,606	1.7
		30–39	105,917	100,273	94.7	2,080	2.0	2,466	2.3	77	0.1	235	0.2	786	0.7
		40–49	101,479	97,752	96.3	1,705	1.7	1,480	1.4	116	0.1	130	0.1	346	0.3
		50–59	75,288	73,603	97.8	802	1.1	603	0.8	112	0.1	44	0.1	124	0.2
		60–69	33,180	32,689	98.5	246	0.7	149	0.4	39	0.1	16	0.0	41	0.1
BC	20–69	20–69	974,166	939,441	96.4	19,096	2.0	7,367	0.8	1,446	0.1	1,463	0.2	5,353	0.5
		20–29	219,039	203,852	93.1	8,462	3.9	3,355	1.5	110	0.1	730	0.3	2,530	1.2
		30–39	236,520	228,261	96.5	4,352	1.8	1,671	0.7	305	0.1	380	0.2	1,551	0.7
		40–49	243,030	235,993	97.1	3,980	1.6	1,514	0.6	491	0.2	210	0.1	842	0.3
		50–59	184,905	181,636	98.2	1,821	1.0	653	0.4	392	0.2	95	0.1	308	0.2
		60–69	90,672	89,699	98.9	481	0.5	174	0.2	148	0.2	48	0.1	122	0.1
MB	20–69	20–69	302,309	283,035	93.6	9,071	3.0	6,166	2.0	299	0.1	920	0.3	2,818	0.9
		20–29	73,739	65,018	88.2	3,504	4.8	3,356	4.6	26	0.0	355	0.5	1,480	2.0
		30–39	67,276	62,985	93.6	2,002	3.0	1,290	1.9	52	0.1	236	0.4	711	1.1
		40–49	69,559	65,872	94.7	2,086	3.0	982	1.4	90	0.1	163	0.2	366	0.5
		50–59	58,535	56,628	96.7	1,118	1.9	415	0.7	82	0.1	115	0.2	177	0.3
		60–69	33,200	32,532	98.0	361	1.1	123	0.4	49	0.1	51	0.2	84	0.3
NL	20–69	20–69	71,133	67,393	94.7	1,457	2.0	1,745	2.5	142	0.2	136	0.2	260	0.4
		20–29	15,163	13,292	87.7	604	4.0	1,075	7.1	15	0.1	73	0.5	104	0.7
		30–39	16,579	15,737	94.9	315	1.9	370	2.2	28	0.2	34	0.2	95	0.6
		40–49	17,606	17,012	96.6	301	1.7	199	1.1	49	0.3	13	0.1	32	0.2
		50–59	14,804	14,481	97.8	177	1.2	77	0.5	38	0.3	8	0.1	23	0.2
		60–69	6,981	6,871	98.4	60	0.9	24	0.3	12	0.2	8	0.1	6	0.1

Year	Province †	Age Group	Satisfactory Pap Tests	Negative		ASC-US		LSIL		AGC		ASC-H		HSIL+	
				Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
NS		20-69	257,817	243,803	94.6	7,541	2.9	3,297	1.3	794	0.3	1,076	0.4	1,306	0.5
		20-29	60,100	53,677	89.2	3,311	5.5	1,974	3.3	81	0.1	494	0.8	643	1.1
		30-39	59,123	56,053	94.8	1,610	2.7	653	1.1	193	0.3	282	0.5	332	0.6
		40-49	63,367	60,745	95.9	1,525	2.4	432	0.7	266	0.4	197	0.3	202	0.3
		50-59	48,630	47,279	97.2	827	1.7	185	0.4	176	0.4	72	0.1	91	0.2
		60-69	26,517	26,049	98.2	268	1.0	53	0.2	78	0.3	31	0.1	38	0.1
ON		20-69	1,391,268	1,325,038	95.2	31,527	2.3	26,646	1.9	1,481	0.1	2,046	0.1	4,530	0.3
		20-29	305,714	275,345	90.1	12,681	4.1	15,025	4.9	197	0.1	727	0.2	1,739	0.6
		30-39	331,050	316,226	95.5	6,975	2.1	5,591	1.7	282	0.1	573	0.2	1,403	0.4
		40-49	353,324	341,323	96.6	6,616	1.9	3,758	1.1	445	0.1	358	0.1	824	0.2
		50-59	260,986	254,394	97.5	3,859	1.5	1,703	0.7	372	0.1	273	0.1	385	0.1
		60-69	140,194	137,750	98.3	1,396	1.0	569	0.4	185	0.1	115	0.1	179	0.1

† NL provided data for 2007.

ON follows a different severity order: negative < ASCUS < AGC < ASC-H < LSIL < HSIL and higher (includes CA).

ON provided data for 2008 for approximately 87% of all Pap tests performed in the province. Approximately 0.01% of the Pap tests had an 'other abnormal cell' finding and were excluded from this calculation.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Screening Test Results - SK

Percentage of women by their most severe Pap test result

Year	Province†	Age Group	Satisfactory Pap Tests	Negative		Abnormal Low		Abnormal High	
				Women	Percent (%)	Women	Percent (%)	Women	Percent (%)
2005	SK	20–69	105,399	101,605	96.4	3,102	2.9	692	0.7
		20–29	28,801	26,629	92.5	1,801	6.3	371	1.3
		30–39	23,041	22,305	96.8	554	2.4	182	0.8
		40–49	25,797	25,251	97.9	452	1.8	94	0.4
		50–59	18,405	18,157	98.7	223	1.2	25	0.1
		60–69	9,355	9,263	99.0	72	0.8	20	0.2
2006	SK	20–69	104,540	100,660	96.3	3,164	3.0	716	0.7
		20–29	28,531	26,323	92.3	1,810	6.3	398	1.4
		30–39	22,845	22,089	96.7	580	2.5	176	0.8
		40–49	25,026	24,463	97.8	475	1.9	88	0.4
		50–59	18,854	18,586	98.6	236	1.3	32	0.2
		60–69	9,284	9,199	99.1	63	0.7	22	0.2
2007	SK	20–69	102,873	98,989	96.2	3,117	3.0	767	0.7
		20–29	28,483	26,254	92.2	1,827	6.4	402	1.4
		30–39	22,450	21,666	96.5	562	2.5	222	1.0
		40–49	23,539	22,996	97.7	453	1.9	90	0.4
		50–59	18,975	18,737	98.7	207	1.1	31	0.2
		60–69	9,426	9,336	99.0	68	0.7	22	0.2
2008	SK	20–69	101,767	97,434	95.7	3,496	3.4	837	0.8
		20–29	28,860	26,385	91.4	2,022	7.0	453	1.6
		30–39	22,259	21,411	96.2	615	2.8	233	1.0
		40–49	22,308	21,712	97.3	501	2.2	95	0.4
		50–59	18,951	18,655	98.4	264	1.4	32	0.2
		60–69	9,389	9,271	98.7	94	1.0	24	0.3
2007–2008	SK	20–69	204,640	196,423	96.0	6,613	3.2	1,604	0.8
		20–29	57,343	52,639	91.8	3,849	6.7	855	1.5
		30–39	44,709	43,077	96.3	1,177	2.6	455	1.0
		40–49	45,847	44,708	97.5	954	2.1	185	0.4
		50–59	37,926	37,392	98.6	471	1.2	63	0.2
		60–69	18,815	18,607	98.9	162	0.9	46	0.2

† SK provided three cytology categories (normal, abnormal low and abnormal high); abnormal low included AGC, AGCN, AGECE, AGEEN, AGEM, ASA, ASCU, ASE and LSIL. Abnormal high included ADC, AIS, ASHG, HSIL, PC2, PSCC and SCC. Refer to Appendix D for a complete description of the codes.

Cytology Turnaround Times (Median Days)

Median number of days from the date the Pap test is performed to the date the Pap test is processed by the laboratory

Province†	2005	2006	2007	2008
BC	16	19	14	11
MB	11	8	11	10
NL	9	7	12	–
NS	29	41	53	24
ON	-	-	21	16
SK	7	14	12	14

† ON provided data for approximately 87% of all Pap tests performed in the province in 2007 and 2008.

Colposcopy Follow-up Rate

Percentage of women with a high-grade (ASC-H and HSIL+) Pap test result who had a follow-up colposcopy examination within 12 months

Year	Province [†]	Age Group	ASC-H HSIL+	0–3 Months		3–6 Months		6–9 Months		9–12 Months		Total	
				Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)
2005	AB	20–49	1,000	835	83.5	70	7.0	27	2.7	13	1.3	945	94.5
		20–29	458	377	82.3	30	6.6	13	2.8	9	2.0	429	93.7
		30–39	280	238	85.0	19	6.8	5	1.8	2	0.7	264	94.3
		40–49	172	147	85.5	14	8.1	4	2.3	1	0.6	166	96.5
		50–59	70	55	78.6	6	8.6	5	7.1	1	1.4	67	95.7
		60–69	20	18	90.0	1	5.0	0	0.0	0	0.0	19	95.0
BC	BC	20–49	4,501	2,722	60.5	599	13.3	132	2.9	60	1.3	3,513	78.0
		20–29	2,078	1,285	59.4	314	15.1	63	3.0	34	1.6	1,646	79.2
		30–39	1,261	820	65.0	137	10.9	40	3.2	14	1.1	1,011	80.2
		40–49	759	460	60.6	103	13.6	18	2.4	8	1.1	589	77.6
		50–59	280	147	52.5	32	11.4	8	2.9	2	0.7	189	67.5
		60–69	123	60	48.8	13	10.6	3	2.4	2	1.6	78	63.4
MB	MB	20–49	2,113	705	33.4	594	28.1	298	14.1	64	3.0	1,661	78.6
		20–29	1,068	351	32.9	300	28.1	141	13.2	34	3.2	826	77.3
		30–39	466	160	34.3	138	29.6	69	14.8	16	3.4	383	82.2
		40–49	308	108	35.1	90	29.2	45	14.6	10	3.2	253	82.1
		50–59	193	65	33.7	53	27.5	30	15.5	2	1.0	150	77.7
		60–69	78	21	26.9	13	16.7	13	16.7	2	2.6	49	62.8

[†] BC received 97% of all colposcopy reports.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of population). The denominator numbers for ASC-H/HSIL are different from the screening results since the lab data covered two regions, but colposcopy data covered the entire province (with some missing forms).

Year	Province†	Age Group	ASC-H HSIL+	0–3 Months		3–6 Months		6–9 Months		9–12 Months		Total	
				Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)
2006	AB	20–69	1,124	77.9	121	10.8	47	4.2	31	2.8	1,075	95.6	
		20–29	522	74.7	63	12.1	26	5.0	13	2.5	492	94.3	
		30–39	348	80.5	31	8.9	12	3.4	14	4.0	337	96.8	
		40–49	166	78.9	20	12.0	8	4.8	3	1.8	162	97.6	
		50–59	68	85.3	6	8.8	0	0.0	1	1.5	65	95.6	
		60–69	20	85.0	1	5.0	1	5.0	0	0.0	19	95.0	
BC	BC	20–69	4,229	56.0	730	17.3	169	4.0	60	1.4	3,326	78.6	
		20–29	2,023	53.7	372	18.4	86	4.3	24	1.2	1,569	77.6	
		30–39	1,160	59.1	181	15.6	48	4.1	26	2.2	940	81.0	
		40–49	695	60.9	108	15.5	22	3.2	6	0.9	559	80.4	
		50–59	260	49.6	49	18.8	10	3.8	4	1.5	192	73.8	
		60–69	91	47.3	20	22.0	3	3.3	0	0.0	66	72.5	
MB	MB	20–69	2,342	31.1	679	29.0	320	13.7	91	3.9	1,818	77.6	
		20–29	1,179	31.8	332	28.2	142	12.0	42	3.6	891	75.6	
		30–39	539	33.0	167	31.0	73	13.5	24	4.5	442	82.0	
		40–49	355	32.7	99	27.9	58	16.3	12	3.4	285	80.3	
		50–59	184	20.7	57	31.0	42	22.8	11	6.0	148	80.4	
		60–69	85	24.7	24	28.2	5	5.9	2	2.4	52	61.2	

† BC received 97% of all colposcopy reports.
 AB provided data for the areas in which the organized program operated during these years (approximately 40% of population). The denominator numbers for ASC-H/HSIL are different from the screening results since the lab data covered two regions, but colposcopy data covered the entire province (with some missing forms).

Year	Province†	Age Group	ASC-H HSIL+	0–3 Months		3–6 Months		6–9 Months		9–12 Months		Total	
				Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)
2007	AB	20–69	2,168	841	38.8	1,054	48.6	135	6.2	64	3.0	2,094	96.6
		20–29	1,131	419	37.0	569	50.3	69	6.1	33	2.9	1,090	96.4
		30–39	560	227	39.1	267	46.0	39	6.7	24	4.1	557	96.0
		40–49	303	135	44.6	140	46.2	18	5.9	3	1.0	296	97.7
		50–59	117	45	38.5	60	51.3	7	6.0	3	2.6	115	98.3
		60–69	37	15	40.5	18	48.6	2	5.4	1	2.7	36	97.3
	BC	20–69	3,988	2,374	59.5	638	16.0	130	3.3	55	1.4	3,197	80.2
		20–29	1,895	1,077	56.8	328	17.3	76	4.0	27	1.4	1,508	79.6
		30–39	1,093	674	61.7	168	15.4	25	2.3	20	1.8	887	81.2
		40–49	635	391	61.6	98	15.4	14	2.2	5	0.8	508	80.0
		50–59	253	155	61.3	34	13.4	8	3.2	3	1.2	200	79.1
		60–69	112	77	68.8	10	8.9	7	6.3	0	0.0	94	83.9
MB	20–69	2,006	623	31.1	546	27.2	249	12.4	95	4.7	1,513	75.4	
	20–29	920	283	30.8	241	26.2	103	11.2	44	4.8	671	72.9	
	30–39	510	169	33.1	137	26.9	60	11.8	19	3.7	385	75.5	
	40–49	312	97	31.1	103	33.0	35	11.2	14	4.5	249	79.8	
	50–59	181	43	23.8	41	22.7	42	23.2	14	7.7	140	77.3	
	60–69	83	31	37.3	24	28.9	9	10.8	4	4.8	68	81.9	

† BC received 97% of all colposcopy reports.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of population). The denominator numbers for ASC-H/HSIL are different from the screening results since the lab data covered two regions, but colposcopy data covered the entire province (with some missing forms).

Year	Province†	Age Group	ASC-H HSL+	0–3 Months		3–6 Months		6–9 Months		9–12 Months		Total	
				Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)
2008	AB	20–69	1,586	327	20.6	1,006	63.4	134	8.4	71	4.5	1,538	97.0
		20–29	832	157	18.9	538	64.7	80	9.6	31	3.7	806	96.9
		30–39	429	90	21.0	270	62.9	30	7.0	28	6.5	418	97.4
		40–49	215	42	19.5	141	65.6	16	7.4	7	3.3	206	95.8
		50–59	80	28	35.0	39	48.8	8	10.0	4	5.0	79	98.8
		60–69	30	10	33.3	18	60.0	0	0.0	1	3.3	29	96.7
BC	20–69	2,828	1,714	60.6	457	16.2	115	4.1	60	2.1	2,346	83.0	
		20–29	1,365	789	57.8	236	17.3	63	4.6	32	2.3	1,120	82.1
		30–39	838	532	63.5	127	15.2	31	3.7	10	1.2	700	83.5
		40–49	417	265	63.5	69	16.5	11	2.6	13	3.1	358	85.9
		50–59	150	98	65.3	18	12.0	5	3.3	2	1.3	123	82.0
		60–69	58	30	51.7	7	12.1	5	8.6	3	5.2	45	77.6
MB	20–69	1,732	715	41.3	359	20.7	217	12.5	66	3.8	1,357	78.3	
		20–29	915	385	42.1	171	18.7	100	10.9	41	4.5	697	76.2
		30–39	437	185	42.3	101	23.1	47	10.8	13	3.0	346	79.2
		40–49	217	91	41.9	43	19.8	38	17.5	7	3.2	179	82.5
		50–59	111	31	27.9	32	28.8	25	22.5	5	4.5	93	83.8
		60–69	52	23	44.2	12	23.1	7	13.5	0	0.0	42	80.8

†BC received 97% of all colposcopy reports.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of population). The denominator numbers for ASC-H/HSL are different from the screening results since the lab data covered two regions, but colposcopy data covered the entire province (with some missing forms).

Year	Province [†]	Age Group	ASC-H HSIL+	0–3 Months		3–6 Months		6–9 Months		9–12 Months		Total	
				Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)	Number of Women	Percent (%)
2007–2008	Provinces Combined	20–69	14,308	46.1	4,060	28.4	980	6.8	411	2.9	12,045	84.2	
		20–29	7,058	44.1	2,083	29.5	491	7.0	208	2.9	5,892	83.5	
		30–39	3,887	48.3	1,070	27.5	232	6.0	114	2.9	3,293	84.7	
		40–49	2,099	48.6	594	28.3	132	6.3	49	2.3	1,796	85.6	
		50–59	892	44.8	224	25.1	95	10.7	31	3.5	750	84.1	
		60–69	372	50.0	89	23.9	30	8.1	9	2.4	314	84.4	
AB	20–69	3,754	31.1	2,060	54.9	269	7.2	135	3.6	3,632	96.8		
	20–29	1,963	29.3	1,107	56.4	149	7.6	64	3.3	1,896	96.6		
	30–39	1,009	31.4	537	53.2	69	6.8	52	5.2	975	96.6		
	40–49	518	34.2	281	54.2	34	6.6	10	1.9	502	96.9		
	50–59	197	37.1	99	50.3	15	7.6	7	3.6	194	98.5		
	60–69	67	37.3	36	53.7	2	3.0	2	3.0	65	97.0		
BC	20–69	6,816	60.0	1,095	16.1	245	3.6	115	1.7	5,543	81.3		
	20–29	3,260	57.2	564	17.3	139	4.3	59	1.8	2,628	80.6		
	30–39	1,931	62.5	295	15.3	56	2.9	30	1.6	1,587	82.2		
	40–49	1,052	62.4	167	15.9	25	2.4	18	1.7	866	82.3		
	50–59	403	62.8	52	12.9	13	3.2	5	1.2	323	80.1		
	60–69	170	62.9	17	10.0	12	7.1	3	1.8	139	81.8		
MB	20–69	3,738	35.8	905	24.2	466	12.5	161	4.3	2,870	76.8		
	20–29	1,835	36.4	412	22.5	203	11.1	85	4.6	1,368	74.6		
	30–39	947	37.4	238	25.1	107	11.3	32	3.4	731	77.2		
	40–49	529	35.5	146	27.6	73	13.8	21	4.0	428	80.9		
	50–59	292	25.3	73	25.0	67	22.9	19	6.5	233	79.8		
	60–69	135	40.0	36	26.7	16	11.9	4	3.0	110	81.5		

[†]BC received 97% of all colposcopy reports.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of population). The denominator numbers for ASC-H/HSIL are different from the screening results since the lab data covered two regions, but colposcopy data covered the entire province (with some missing forms).

Biopsy Rates

Percentage of women with a high-grade (ASC-H and HSIL+) Pap test result who had biopsy within 12 months

Province†	Age Group	2005			2006			2007			2008			2007–2008		
		Histologic Investigation (Women)	ASC-H HSIL+	Percent (%)	Number of Women	ASC-H HSIL+	Percent (%)	Number of Women	ASC-H HSIL+	Percent (%)	Number of Women	ASC-H HSIL+	Percent (%)	Number of Women	ASC-H HSIL+	Percent (%)
BC	20–49	3,920	4,501	87.1	3,688	4,229	87.2	3,559	3,988	89.2	2,559	2,828	90.5	6,118	6,816	89.8
	20–29	1,771	2,078	85.2	1,713	2,023	84.7	1,656	1,895	87.4	1,201	1,365	88.0	2,857	3,260	87.6
	30–39	1,128	1,261	89.5	1,031	1,160	88.9	976	1,093	89.3	774	838	92.4	1,750	1,931	90.6
	40–49	680	759	89.6	644	695	92.7	586	635	92.3	384	417	92.1	970	1,052	92.2
	50–59	239	280	85.4	226	260	86.9	239	253	94.5	143	150	95.3	382	403	94.8
	60–69	102	123	82.9	74	91	81.3	102	112	91.1	57	58	98.3	159	170	93.5

Cytology-Histology Agreement

Percentage of high-grade Pap tests (ASC-H and HSIL+) that had a histological confirmation* within 12 months

Province†	Type of Results	2005			2006			2007			2008			2007–2008		
		Histology Results	High-grade Cytology	Percent (%)	Histology Results	High-grade Cytology	Percent (%)	Histology Results	High-grade Cytology	Percent (%)	Histology Results	High-grade Cytology	Percent (%)	Histology Results	High-grade Cytology	Percent (%)
AB	<CIN II(Neg,CIN I, Other)	341	762	44.8	397	864	45.9	804	1,654	48.6	610	1,252	48.7	1,414	2,906	48.7
	CIN II/CIN III+	421	762	55.2	467	864	54.1	850	1,654	51.4	642	1,252	51.3	1,492	2,906	51.3
BC	<CIN II(Neg,CIN I, Other)	1,387	3,666	37.8	1,305	3,416	38.2	1,189	3,343	35.6	677	2,391	28.3	1,866	5,734	32.5
	CIN II	872	3,666	23.8	807	3,416	23.6	742	3,343	22.2	519	2,391	21.7	1,261	5,734	22.0
	CIN III+	1,407	3,666	38.4	1,304	3,416	38.2	1,412	3,343	42.2	1,195	2,391	50.0	2,607	5,734	45.5
MB	<CIN II(Neg,CIN I, Other)	560	1,075	52.1	601	1,121	53.6	524	914	57.3	489	880	55.6	1,013	1,794	56.5
	CIN II	236	1,075	22.0	227	1,121	20.2	161	914	17.6	165	880	18.8	326	1,794	18.2
	CIN III+	279	1,075	26.0	293	1,121	26.1	229	914	25.1	226	880	25.7	455	1,794	25.4

* Histological confirmation includes any cervical, vaginal or endo-cervical histology result.

†MB: if a Pap test was followed by a biopsy with CIN II and biopsy with CIN III+, the first biopsy was reported.

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Pre-cancer Detection Rates

Number of women diagnosed with a pre-cancerous lesion* per 1,000

Province†	Age Group	2005			2006			2007			2008			2007–2008		
		CIN II/CIN III	Women	Rate per 1,000	CIN II/CIN III	Women	Rate per 1,000	CIN II/CIN III	Women	Rate per 1,000	CIN II/CIN III	Women	Rate per 1,000	CIN II/CIN III	Women	Rate per 1,000
BC	20–69	2,906	500,448	5.8	2,808	513,766	5.5	2,793	509,009	5.5	2,356	507,120	4.6	5,149	1,016,129	5.1
	20–29	1,339	106,481	12.6	1,278	110,010	11.6	1,240	110,213	11.3	1,102	112,241	9.8	2,342	222,454	10.5
	30–39	889	123,241	7.2	821	124,512	6.6	887	121,243	6.9	713	119,984	5.9	1,550	241,227	6.4
	40–49	510	130,009	3.9	483	132,105	3.7	458	127,631	3.6	360	123,917	2.9	818	251,548	3.3
	50–59	84	95,134	0.9	157	99,461	1.6	173	99,396	1.7	123	99,359	1.2	296	198,755	1.5
	60–69	84	45,583	1.8	69	47,678	1.4	85	50,526	1.7	58	51,619	1.1	143	102,145	1.4
MB	20–69	939	149,967	6.3	1,011	154,051	6.6	850	152,495	5.6	832	153,193	5.4	1,682	305,888	5.5
	20–29	517	36,760	14.1	534	37,469	14.3	447	37,108	12.0	476	37,761	12.6	923	74,869	12.3
	30–39	226	34,105	6.6	271	34,411	7.9	237	34,126	6.9	212	33,987	6.2	449	68,113	6.6
	40–49	113	36,209	3.1	133	36,695	3.6	98	35,526	2.8	92	34,715	2.7	190	70,241	2.7
	50–59	62	28,196	2.2	47	29,632	1.6	50	29,282	1.7	42	29,773	1.4	92	59,055	1.6
	60–69	21	14,697	1.4	26	15,844	1.6	18	16,653	1.1	10	16,957	0.6	28	33,610	0.8
NL	20–69	229	73,498	3.1	291	72,684	4.0	296	71,208	4.2	—	—	—	296	71,208	4.2
	20–29	—	—	—	—	—	—	153	15,115	10.1	—	—	—	153	15,115	10.1
	30–39	—	—	—	—	—	—	94	16,604	5.7	—	—	—	94	16,604	5.7
	40–49	—	—	—	—	—	—	33	17,644	1.9	—	—	—	33	17,644	1.9
	50–59	—	—	—	—	—	—	10	14,839	0.7	—	—	—	10	14,839	0.7
	60–69	—	—	—	—	—	—	6	7,006	0.9	—	—	—	6	7,006	0.9

*Pre-cancerous lesions include CIN II and CIN III outcomes (moderate and severe dysplasia and cervical carcinoma in situ) and exclude adenocarcinoma in situ.

†NL included approximately 95% of all cytology reports.

Age-standardized Invasive Cervical Cancer* Incidence Rate per 100,000, age 20–69

Province†	Age Group	2005			2006			2007			2008			2007–2008		
		Cases	Population	Age-standardized Incidence Rate (per 100,000)	Cases	Population	Age-standardized Incidence Rate (per 100,000)	Cases	Population	Age-standardized Incidence Rate (per 100,000)	Cases	Population	Age-standardized Incidence Rate (per 100,000)	Cases	Population	Age-standardized Incidence Rate (per 100,000)
Provinces Combined	20–69	756	6,987,462	10.4	784	7,103,991	10.7	807	7,229,583	10.9	320	3,036,839	10.2	3,158	28,594,360	10.7
AB	20–69	124	1,072,464	11.6	142	1,107,498	13.0	140	1,139,794	12.2	136	1,168,071	11.1	542	4,487,827	12.0
BC	20–69	146	1,410,968	9.9	124	1,431,890	8.3	139	1,458,381	9.4	141	1,489,033	8.9	550	5,790,272	9.2
MB	20–69	51	367,793	13.5	41	370,564	10.2	43	374,876	10.8	43	379,735	12.1	178	1,492,968	11.6
NB	20–69	23	252,346	–	21	252,738	–	28	253,249	–	27	254,295	–	100	1,012,628	9.0
NL	20–69	11	171,728	–	29	177,323	–	23	176,718	–	22	177,138	–	85	708,907	12.2
NS	20–69	38	317,916	–	44	319,642	–	40	320,672	–	32	322,181	–	154	1,280,411	12.2
ON	20–69	435	4,136,237	10.0	477	4,194,039	10.9	485	4,256,532	11.1	–	4,320,320	–	1,397	12,586,808	10.7
SK	20–69	32	304,148	–	30	305,676	–	43	309,715	–	47	315,000	–	152	1,234,539	12.5

* Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

† Age-standardized incidence rates for Provinces Combined only include provinces with complete age-breakdown data.

Age-specific Invasive Cervical Cancer* Incidence Rate per 100,000

Year	Province†	Age Group	Cases	Population	Crude Rate (per 100,000)
2005	AB	20–69	124	1,072,464	11.6
		20–29	14	245,420	5.7
		30–39	40	237,119	16.9
		40–49	40	273,284	14.6
		50–59	19	201,362	9.4
		60–69	11	115,279	9.5
	BC	20–69	146	1,410,968	10.3
		20–29	8	277,072	2.9
		30–39	41	293,939	13.9
		40–49	42	352,917	11.9
		50–59	37	298,790	12.4
		60–69	18	188,250	9.6
	MB	20–69	51	367,793	13.9
		20–29	7	77,473	9.0
		30–39	11	75,863	14.5
		40–49	14	90,546	15.5
		50–59	12	76,075	15.8
		60–69	7	47,836	14.6
	NB	20–69	23	252,346	9.1
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–
	NL	20–69	11	177,728	6.2
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–
NS	20–69	38	317,916	12.0	
	20–29	–	–	–	
	30–39	–	–	–	
	40–49	–	–	–	
	50–59	–	–	–	
	60–69	–	–	–	

Year	Province [†]	Age Group	Cases	Population	Crude Rate (per 100,000)
	ON	20–69	435	4,136,237	10.5
		20–29	26	833,651	3.1
		30–39	114	914,033	12.5
		40–49	143	1,040,616	13.7
		50–59	100	819,150	12.2
		60–69	52	528,787	9.8
		SK	20–69	32	304,148
	20–29		–	–	–
	30–39		–	–	–
	40–49		–	–	–
	50–59		–	–	–
	60–69		–	–	–

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

Year	Province [†]	Age Group	Cases	Population	Crude Rate (per 100,000)
2006	AB	20–69	142	1,107,498	12.8
		20–29	21	255,958	8.2
		30–39	42	243,228	17.3
		40–49	40	274,790	14.6
		50–59	22	212,820	10.3
		60–69	17	120,702	14.1
		BC	20–69	124	1,431,890
	20–29		7	281,509	2.5
	30–39		32	291,175	11.0
	40–49		41	352,349	11.6
	50–59		28	310,360	9.0
	60–69		16	196,497	8.1
	MB		20–69	41	370,564
		20–29	4	77,959	5.1
		30–39	5	74,995	6.7
		40–49	19	90,095	21.1
		50–59	9	78,011	11.5
		60–69	4	49,504	8.1

Year	Province†	Age Group	Cases	Population	Crude Rate (per 100,000)
	NB	20–69	21	252,738	8.3
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–
		NL	20–69	29	177,323
	20–29		–	–	–
	30–39		–	–	–
	40–49		–	–	–
	50–59		–	–	–
	60–69		–	–	–
	NS		20–69	44	319,642
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–
		ON	20–69	477	4,194,039
	20–29		27	845,350	3.2
	30–39		129	906,249	14.2
	40–49		139	1,048,288	13.3
	50–59		117	846,638	13.8
	60–69		65	547,514	11.9
	SK		20–69	30	305,676
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

Year	Province†	Age Group	Cases	Population	Crude Rate (per 100,000)
2007	AB	20–69	140	1,139,794	12.3
		20–29	15	265,994	5.6
		30–39	34	249,636	13.6
		40–49	47	274,757	17.1
		50–59	23	221,042	10.4
		60–69	21	128,365	16.4
		BC	20–69	139	1,458,381
	20–29		6	287,585	2.1
	30–39		45	292,994	15.4
	40–49		39	351,070	11.1
	50–59		34	317,665	10.7
	60–69		15	209,067	7.2
	MB		20–69	43	374,876
		20–29	2	79,235	2.5
		30–39	9	75,269	12.0
		40–49	13	89,013	14.6
		50–59	12	79,258	15.1
		60–69	7	52,101	13.4
		NB	20–69	28	253,249
	20–29		–	–	–
	30–39		–	–	–
	40–49		–	–	–
	50–59		–	–	–
	60–69		–	–	–
	NL		20–69	23	176,718
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–
NS		20–69	40	320,672	12.5
	20–29	–	–	–	
	30–39	–	–	–	
	40–49	–	–	–	
	50–59	–	–	–	
	60–69	–	–	–	

Year	Province [†]	Age Group	Cases	Population	Crude Rate (per 100,000)
	ON	20–69	485	4,256,532	11.4
		20–29	32	861,302	3.7
		30–39	135	903,788	14.9
		40–49	156	1,048,978	14.9
		50–59	95	864,031	11.0
		60–69	67	578,433	11.6
	SK	20–69	43	309,715	13.9
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

Year	Province [†]	Age Group	Cases	Population	Crude Rate (per 100,000)
2008	AB	20–69	136	1,168,071	11.6
		20–29	15	273,790	5.5
		30–39	28	256,321	10.9
		40–49	46	273,624	16.8
		50–59	36	228,606	15.7
		60–69	11	135,730	8.1
	BC	20–69	141	1,489,033	9.5
		20–29	10	295,989	3.4
		30–39	28	295,661	9.5
		40–49	48	350,545	13.7
		50–59	35	325,962	10.7
		60–69	20	220,876	9.1
	MB	20–69	43	379,735	11.3
		20–29	4	80,662	5.0
		30–39	17	76,085	22.3
		40–49	12	87,707	13.7
		50–59	6	80,667	7.4
		60–69	4	54,614	7.3

Year	Province†	Age Group	Cases	Population	Crude Rate (per 100,000)
	NB	20–69	27	254,295	10.6
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–
	NL	20–69	22	177,138	12.4
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–
	NS	20–69	32	322,181	9.9
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–
	SK	20–69	47	315,000	14.9
		20–29	–	–	–
		30–39	–	–	–
		40–49	–	–	–
		50–59	–	–	–
		60–69	–	–	–

†Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

Year	Province†	Age Group	Cases	Population	Crude Rate (per 100,000)
2005–2008	Provinces Combined	20–69	3,158	28,594,360	11.0
		20–29	239	5,860,045	4.1
		30–39	842	6,007,975	14.0
		40–49	979	7,028,686	13.9
		50–59	686	5,900,577	11.6
		60–69	412	3,797,077	10.9

Year	Province†	Age Group	Cases	Population	Crude Rate (per 100,000)
	AB	20–69	542	4,487,827	12.1
		20–29	65	1,041,162	6.2
		30–39	144	986,304	14.6
		40–49	173	1,096,455	15.8
		50–59	100	863,830	11.6
		60–69	60	500,076	12.0
	BC	20–69	550	5,790,272	9.5
		20–29	31	1,142,155	2.7
		30–39	146	1,173,769	12.4
		40–49	170	1,406,881	12.1
		50–59	134	1,252,777	10.7
		60–69	69	814,690	8.5
	MB	20–69	178	1,492,968	11.9
		20–29	17	315,329	5.4
		30–39	42	302,212	13.9
		40–49	58	357,361	16.2
		50–59	39	314,011	12.4
		60–69	22	204,055	10.8
	NB	20–69	100	1,012,628	9.9
		20–29	6	185,006	3.2
		30–39	20	198,855	10.1
		40–49	24	246,406	9.7
		50–59	33	231,036	14.3
		60–69	17	151,325	11.2
	NL	20–69	85	708,907	12.0
		20–29	7	122,693	5.7
		30–39	28	140,943	19.9
		40–49	22	173,213	12.7
		50–59	18	164,608	10.9
		60–69	10	107,450	9.3
	NS	20–69	154	1,280,411	12.0
		20–29	14	239,960	5.8
		30–39	44	246,448	17.9
		40–49	47	314,045	15.0
		50–59	26	284,715	9.1
		60–69	23	195,243	11.8

Year	Province [†]	Age Group	Cases	Population	Crude Rate (per 100,000)
	ON	20–69	1,397	12,586,808	11.1
		20–29	85	2,540,303	3.3
		30–39	378	2,724,070	13.9
		40–49	438	3,137,882	14.0
		50–59	312	2,529,819	12.3
		60–69	184	1,654,734	11.1
	SK	20–69	152	1,234,539	12.3
		20–29	14	273,437	5.1
		30–39	40	235,374	17.0
		40–49	47	296,443	15.9
		50–59	24	259,781	9.2
		60–69	27	169,504	15.9

[†]Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

[†]NB: Due to small numbers, 15–19 and 20–29 were not reported separately, therefore 20–29 may be a slight overestimate.
ON included data for 2005–2007.

BC data may include some patients who were clinically diagnosed (no pathology report).

No data was provided for age group 15–19; category was not shown.

Stage I

Percentage of Invasive Cervical Cancers* Detected at Stage I, 2005–2008

Province [†]	Age Group	Stage I	Number of Cervical Cancers	Percent (%)
AB	20–69	317	542	58.5
	20–49	264	382	69.1
	50–69	53	160	33.1
MB	20–69	97	178	54.5
	20–49	76	117	65.0
	50–69	21	61	34.4

Province [†]	Age Group	Stage 1	Number of Cervical Cancers	Percent (%)
NL	20–69	48	85	56.5
	20–49	38	57	66.7
	50–69	10	28	35.7
NS	20–69	30	72	41.7
	20–49	–	–	–
	50–69	–	–	–
SK	20–69	55	152	36.2
	20–49	42	101	41.6
	50–69	13	51	25.5

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

[†] NS provided staging information for 2007 and 2008 for the 20–69 year age group.

BC was not included because the stage data included only referred patients.

Screening History in cases of Invasive Cervical Cancer

Percentage of women diagnosed with invasive cervical cancer* by time since last screening Pap test, age 20–69, years 2005–2008

Province [†]	Cases	0.5–3 Years		3–5 years		>5 years or never**	
		Invasive Cases	Percent (%)	Invasive Cases	Percent (%)	Invasive Cases	Percent (%)
Provinces Combined	853	415	48.7	77	9.0	361	42.3
BC	459	254	55.3	44	9.6	161	35.1
MB	155	69	44.5	17	11.0	69	44.5
NL	85	31	36.5	5	5.9	49	57.6
NS	154	61	39.6	11	7.1	82	53.2
ON	454	187	41.2	46	10.1	221	48.7

*Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

** The >5 or never category includes women whose Pap tests were >5 years prior to diagnosis, who had no record of any Pap tests, or whose Pap tests occurred during the six months prior to diagnosis and were therefore considered a diagnostic Pap test.

[†] BC includes staging data for referred patients.

ON provided data for 2008 only and >5 years included >5–10 years. ON was excluded from Provinces Combined.



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