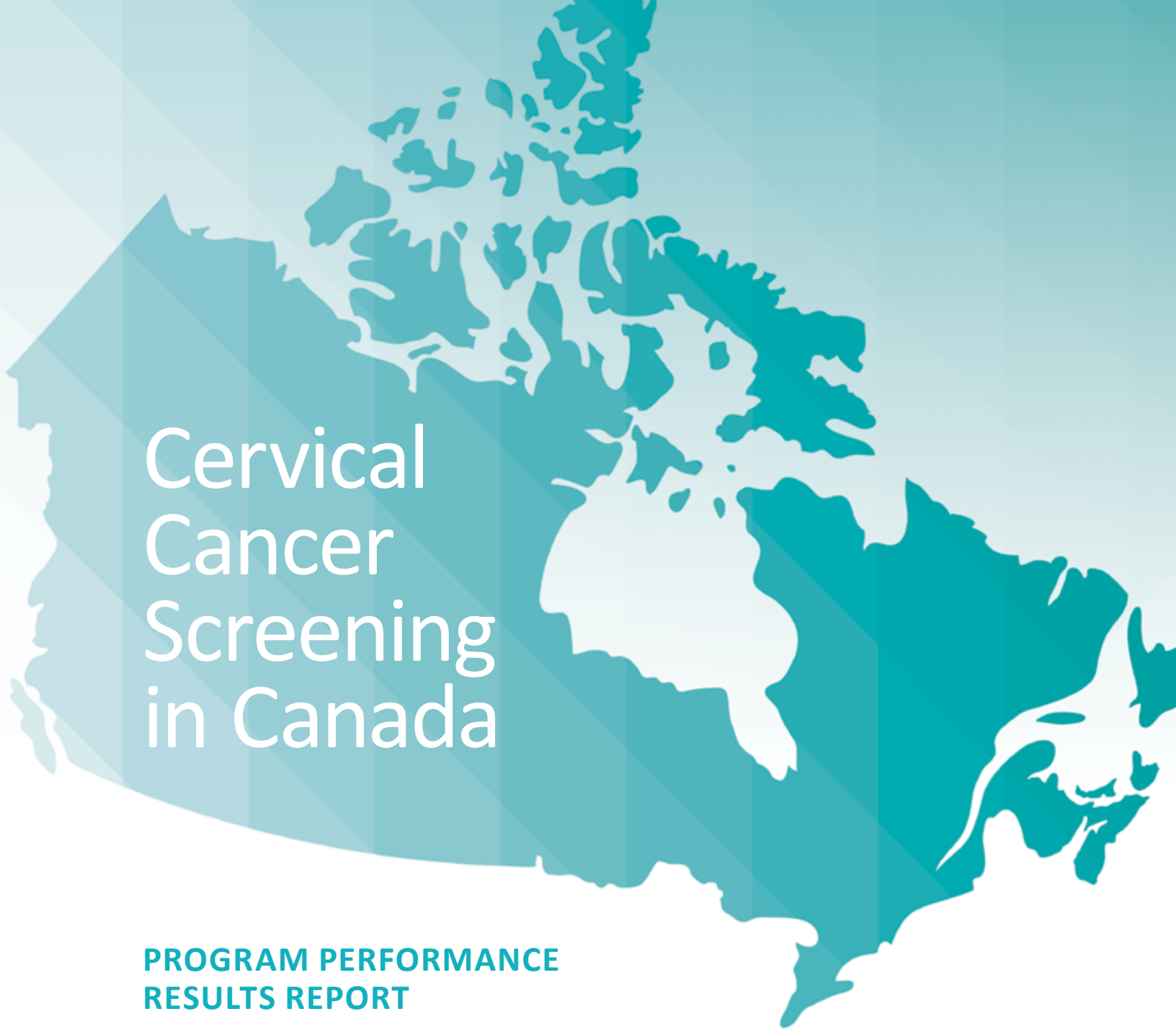

Cervical Cancer Screening in Canada

PROGRAM PERFORMANCE RESULTS REPORT

JANUARY 2009 – DECEMBER 2011

CANADIAN PARTNERSHIP AGAINST CANCER
PARTENARIAT CANADIEN CONTRE LE CANCER

Acknowledgments
This report was prepared by the Monitoring Program Performance Working Group and the Monitoring Program Performance Data Group, members of which are identified in Appendix A, with support from the Canadian Partnership Against Cancer's Analytics Unit. Provincial cervical cancer screening programs contributed data for this report and reviewed report drafts. Without the support of the Pan-Canadian Cervical Cancer Screening Network and the Canadian Partnership Against Cancer, this report would not have been possible.[1]

Suggested citation
Canadian Partnership Against Cancer. Cervical Cancer Screening in Canada: Monitoring Program Performance 2009–2011. Toronto: Canadian Partnership Against Cancer, 2013.

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Executive Summary

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 recent years, there have been significant changes to recommended practice for cervical screening including a later age of initiation and longer intervals between screens. Human papillomavirus (HPV) testing is being evaluated in several provinces and the first HPV-vaccinated cohort is approaching the age for screening. Monitoring program performance is essential to evaluate these changes as they are incorporated into practice.

In 2009, 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 performance indicators for cervical cancer screening programs in five areas to help monitor cervical screening progress: coverage, cytology performance, system capacity, follow-up, and outcomes.[1]

The monitoring of cervical cancer screening performance is a priority of the Pan-Canadian Cervical Cancer Screening Network, a national cervical cancer screening forum supported by the Canadian Partnership Against Cancer (the Partnership). To address this priority, the Network collaborated closely with cervical cancer screening programs to develop standardized reporting definitions, submit data and produce an inaugural report that provided information on cervical cancer screening across Canada from 2006–08.

This second report presents data for the years 2009–11 for the 12 cervical screening program performance indicators for women aged 20 to 69 years, plus descriptive information about the use of HPV testing and immunization. This report also provides more detailed cervical cancer information for 20 to 24 year old women and by histological subtype (squamous cell carcinoma and non–squamous cell carcinomas).

Although the degree of cervical cancer screening program organization varies across the country, eight provinces contributed data for this report: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. Each provincial cervical screening program reviewed and approved its data and report and all provinces and territories were kept informed of the process.

The results provide updated information about cervical cancer screening outcomes from across Canada. In most cases, the submitting provinces were able to provide data on more indicators than for the first report. As a result of discussions with the members of the Pan-Canadian Cervical Cancer Screening Network, there is also greater clarity on data definitions, which has led to improvements in data quality and interpretation. Some provinces were unable to submit data for various reasons including data unavailability, data incompleteness, human resource issues, and lack of information system capacity and technical resources. These gaps must be addressed because reliable, valid screening information is essential for evaluating cervical cancer screening in Canada.

The next step in the process of monitoring the performance of cervical cancer screening programs is the development of national targets for the current indicators and the continued evaluation of HPV testing and vaccination. Through this project and other initiatives, the Pan-Canadian Cervical Cancer Screening Network 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. The participation rate should exclude women who have had a total hysterectomy because these women do not need routine screening. Not correcting for hysterectomy is likely to underestimate participation rates in older women. Age-standardized participation rates corrected for hysterectomy were available for three provinces; those rates were 64.9%, 69.5% and 70.1%. Hysterectomy-corrected participation was stable until age 50 and then decreased to 60.0% for women aged 60 to 69, confirming a decrease in participation with age. Age-standardized participation rates not corrected for hysterectomy were available from five provinces and ranged from 64.6% to 74.4%. Participation has remained stable since the last report.

Retention Rate

Retention is the percentage of eligible women who were re-screened within three years after a negative Pap test. Retention reflects the ability to screen women repeatedly over time as well as the acceptability of the test. Retention rates ranged from 74.3% to 95.3% and were lowest for women aged 60 to 69 (76.0%). The retention rate appears to be stable over time. Additional strategies may therefore be required to ensure that hard-to-reach women are re-screened at the recommended interval.

Specimen Adequacy Rate

Specimen adequacy is measured by the percentage of unsatisfactory Pap tests. The percentage of unsatisfactory tests for the provinces combined was 2.9%. The percentage of unsatisfactory Pap tests using conventional cytology ranged from 0.9% to 4.0%. The percentage of unsatisfactory tests using liquid-based cytology (LBC) ranged from 0.7% to 3.0%.

Screening Test Results

Screening test results categorize women by their most severe cytology result in a 12-month period. The percentage of women who had a negative Pap test result was 95.0%. The percentage of women who had an abnormal cytology result was 5.0% (range, 3.8% to 6.4%). Overall, 3.9% of abnormal cytology results were low grade (atypical squamous cells of undetermined significance — ASC-US, or low-grade squamous intraepithelial lesions — LSIL) and 1.1% were high grade (atypical glandular cells — AGC, atypical squamous cells, high-grade — ASC-H, or high-grade squamous intraepithelial lesions — HSIL or more severe).

Cytology Turnaround Time

Cytology turnaround time is the median number of days from the date of specimen collection to the date the laboratory issues the Pap test report. The median cytology turnaround time for 2011 ranged from 13 to 57 days. The majority of provinces had median turnaround times between 13 and 17 days.

Time to Colposcopy

Time to colposcopy is the percentage of women with a high-grade abnormal Pap test result (AGC, ASC-H or HSIL+) who had a colposcopy within three, six, nine and 12 months. The percentage of these women who had a colposcopy within 12 months ranged from 82.5% to 84.7%. Twice as many provinces were able to report this data than in the previous report, which is particularly important given the increased emphasis on reducing the time to diagnosis as much as possible.

Histological Investigation

Histological investigation is the percentage of women with a high-grade abnormal Pap test result (ASC-H or HSIL+) who had a colposcopy, histological investigation, or both. Compared with the previous report, significantly more provinces were able to provide this data. The percentage of women who had an ASC-H or HSIL+ Pap test result who had histological investigation for 2009-10 was 80.7% (range, 70.4% to 89.7%). The percentage of women who had an ASC-H or HSIL+ Pap test result and a colposcopy who had histological investigation was 90.1% (range, 82.1% to 96.5%). The differences reflect referral to or attendance at colposcopy.

Cytology-Histology Agreement

Cytology-histology agreement is the percentage of high-grade abnormal Pap test results (ASC-H or HSIL+) that had histological confirmation of cervical intraepithelial neoplasia (CIN) 2 (moderate dysplasia) and CIN 3+ (severe dysplasia, carcinoma in situ, or invasive cervical cancer). The percentage of biopsy results that showed CIN 2 or 3+ following an ASC-H Pap test result ranged from 35.4% to 58.5%. The percentage of biopsy results that showed CIN 2 or 3+ following an HSIL+ Pap test result ranged from 59.5 to 82.1%.

Pre-cancer Incidence Rate

The pre-cancer incidence rate is the number of pre-cancerous lesions detected per 1,000 women screened in a 12-month period. The pre-cancerous incidence rate ranged from 3.1 to 7.5 per 1,000 women screened, was highest for the 20 to 29 age group (12.6 per 1,000 women screened), and decreased with age. The higher rate in younger women reflects the increased prevalence of HPV infections in younger women as well as the potential over-diagnosis that may be occurring.

Cancer Incidence Rate

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 aged 20 years or older was 7.1 per 100,000 for squamous cell carcinoma and 3.6 for non–squamous cell carcinoma. These numbers are comparable to those in the previous report, which presented only a combined cancer rate.

Cancers Diagnosed at Stage 1

Cancers diagnosed at Stage 1 is the percentage of invasive cervical cancer cases detected at Stage 1 according to the International Federation of Gynaecology and Obstetrics (FIGO) classification system. Cancers diagnosed at Stage 1 ranged from 44.8% to 62.7%.

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 their last Pap test. The percentage of women diagnosed with invasive cervical cancer who had a Pap test more than five years before or who had never had a Pap test was 62.1% for squamous cell carcinoma and 67.9% for non–squamous cell carcinoma. These cases of cancer may have been prevented with regular screening.

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, over 1,400 Canadian women are diagnosed with invasive cervical cancer each year.[3] 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 result, or the Pap test failed to detect their cancer.[4] It is therefore critical to continuously monitor and evaluate cervical cancer screening to ensure that Canadian women receive high-quality cancer prevention services.

In Canada, cervical screening has typically occurred spontaneously or opportunistically; however, organized screening programs, which provide the components required to effectively reduce the burden of cervical cancer and permit the evaluation of screening effectiveness, are becoming more developed across the country. Supporting organized cervical cancer screening is a key priority for the Pan-Canadian Cervical Cancer Screening Network, a national cervical cancer screening forum supported by the Canadian Partnership Against Cancer.

In 2010, the Pan-Canadian Cervical Cancer Screening Network formed a working group to collaborate with provincial and territorial screening programs to submit and analyse screening data using the 12 program performance indicators previously developed by the Screening Performance Indicators Working Group and the Public Health Agency of Canada.[1] This report is the second produced by the Pan-Canadian Cervical Cancer Screening Network and provides information on the 12 performance indicators for women aged 20 to 69 for the years 2009–11. The results differ across the country and are influenced by the level of 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 differ 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 highly prevalent sexually transmitted virus; peak prevalence occurs during adolescence and the early 20s 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 becoming infected with a high-risk HPV type and developing a pre-cancerous lesion is 24 months, with a further eight to 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 – CIN 2 and 3 – 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 owing to the widespread use of screening and the diagnosis and treatment of pre-cancerous lesions. In 2007, 1,405 Canadian women were diagnosed with invasive cervical cancer and 370 died from the disease.[3] Invasive cervical cancer incidence has declined from 15.4 per 100,000 in 1977 to an estimated 7.4 per 100,000 in 2013, while invasive cervical cancer mortality has declined from 4.8 per 100,000 in 1977 to an estimated 1.6 per 100,000 in 2013.[3]

History of Cervical Cancer Screening in Canada

In Canada, cervical cancer screening policy and organization occurs at the provincial and territorial level. Historically, the delivery of cervical cancer screening has been largely opportunistic and depends on the initiative of the individual woman 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 through 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 are as follows:

- 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
- A method for identifying cancer occurrence in the target population[7]

By 2013, seven provinces had partially organized cervical screening programs and two had organized programs that include population-based recruitment and recall systems (Appendix B).

Cervical Cancer Screening Process

Figure 1 illustrates the cervical cancer screening process. Eligible women are given a Pap test by their health-care provider and the sample cells are then processed by a laboratory. Women who have a negative Pap test result should be re-screened every two to three years, depending on provincial or territorial guidelines. Those who have an abnormal result undergo a repeat Pap test, or a colposcopy, biopsy or both, depending on the severity of the abnormality. In an organized screening program, eligible women are invited to screening and are recalled based on their Pap test results.

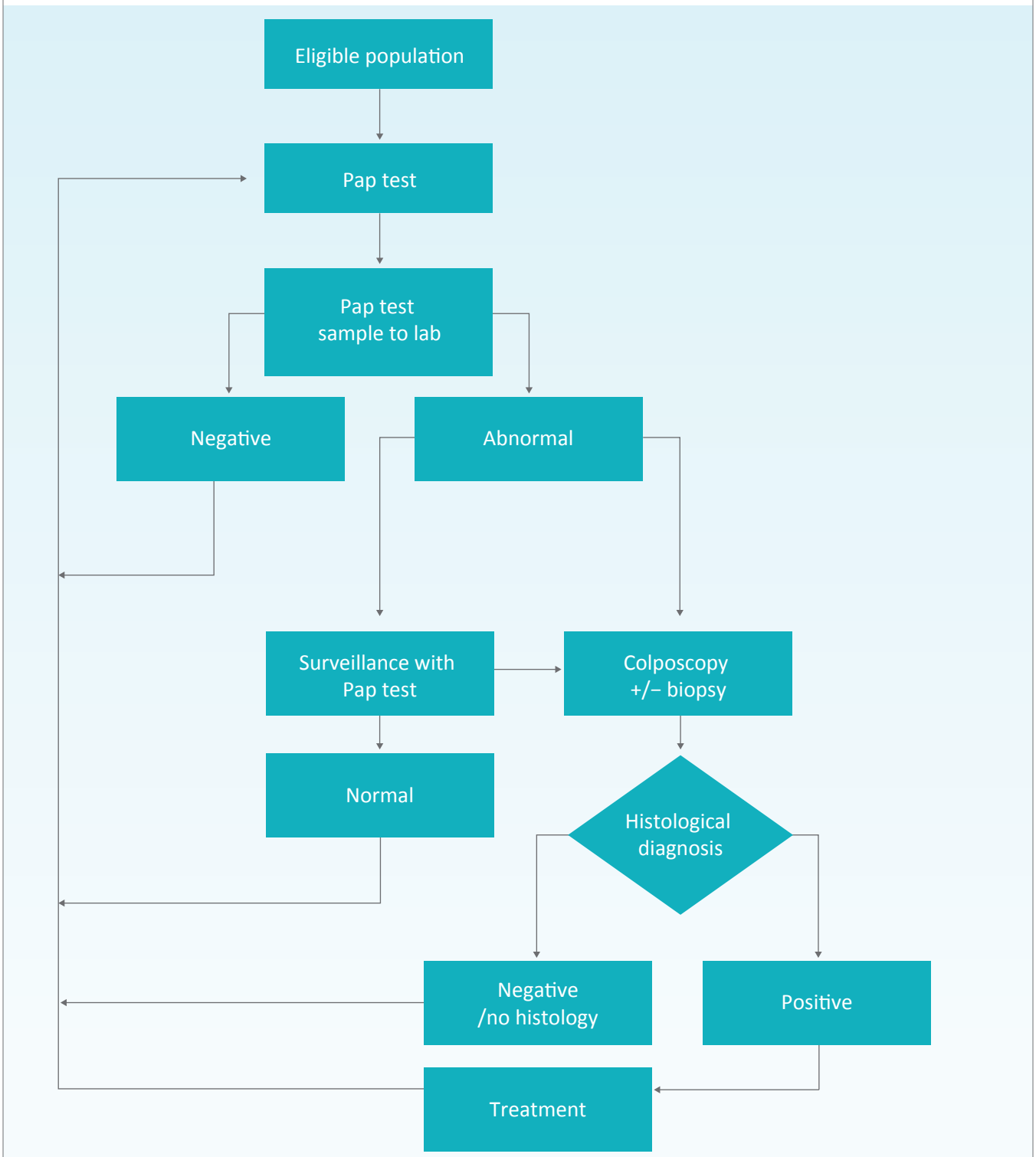
PAP TEST

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
Cervical Cancer Screening Process



Methods

DEVELOPMENT OF PROGRAM PERFORMANCE INDICATORS

In 2009, a performance monitoring guide for cervical screening programs in Canada was published by a Screening Performance Indicators Working Group formed under the guidance of the Public Health Agency of Canada's Steering Committee for the Cervical Cancer Prevention and Control Network (CCPCN). The Working Group identified 12 indicators to facilitate the comparison of cervical cancer screening performance across Canada (Figure 2).[1]

Table 1 summarizes the definitions for the 12 indicators; Appendix C provides more detailed definitions.

TABLE 1
Definitions of Cervical Cancer Screening Indicators

INDICATOR	DEFINITION
1. PARTICIPATION RATE	Percentage of eligible women in the target population with at least 1 Pap test in a 3-year period
2. RETENTION RATE	Percentage of eligible women re-screened within 3 years following a negative Pap test in a 12-month period
3. SPECIMEN ADEQUACY RATE	Percentage of test results reported as unsatisfactory in a 12-month period
4. SCREENING TEST RESULTS	Women categorized by their most severe Pap test result in a 12-month period
5. CYTOLOGY TURNAROUND TIME	Median number of days from date of Pap test to date the test report is issued by the laboratory in a 12-month period
6. TIME TO COLPOSCOPY*	Percentage of women with a high-grade abnormal Pap test result (AGC, ASC-H or HSIL+) who had follow-up colposcopy examination within 3, 6, 9 and 12 months of the Pap test
7. HISTOLOGICAL INVESTIGATION*	Percentage of women with a high-grade abnormal Pap test result (ASC-H or HSIL+) who had a histological investigation within 12 months of the Pap test
8. CYTOLOGY-HISTOLOGY AGREEMENT	Percentage of high-grade abnormal Pap test results (ASC-H or HSIL+) that had a CIN 2 (moderate dysplasia) or CIN 3+ (severe dysplasia, carcinoma in situ or invasive cervical cancer) biopsy result within 12 months of the Pap test
9. PRE-CANCER INCIDENCE RATE*	Number of pre-cancerous lesions (CIN 2 – moderate dysplasia, CIN 3 – severe dysplasia or 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 squamous cell and non–squamous cell invasive cervical cancer per 100,000 women
11. CANCERS DIAGNOSED AT STAGE 1	Percentage of cases of invasive cervical cancer diagnosed at FIGO Stage 1 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 6 months to less than 3 years, 3 to 5 years, or more than 5 years before the date of cancer diagnosis

*Indicators modified from *Performance Monitoring for Cervical Cancer Screening Programs in Canada – 2009* to better reflect the concept being measured and the source of data.[1]
AGC = atypical glandular cells; ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions or more severe; CIN = cervical intraepithelial neoplasia; FIGO = International Federation of Gynecology and Obstetrics

PROJECT APPROACH

In 2010, the Pan-Canadian Cervical Cancer Screening Network established a working group that included Network representatives from across Canada to develop a process for monitoring cervical cancer screening nationwide. The primary responsibility of the group is to regularly produce comprehensive, pan-Canadian cervical cancer screening reports.

A data group comprising data analysts from each of the screening programs was also formed to provide expertise and advice on data definitions, analytical details and methodology, and to co-ordinate the data submissions from the provinces.

The first report was published in December 2011 and included data from 2006–08. The approach for this 2009–11 report included completing an environmental scan of data availability across Canada, sending a formal request for aggregate data to the provinces and territories, and reviewing and updating the data definition document, which includes detailed definitions and calculations for each of the 12 indicators (Appendix C). The updated data definitions were circulated and reviewed by the data group several times to ensure reporting consistency across the cervical screening programs.

HPV testing and HPV immunization are also discussed in this report because the impact of both on cervical screening in the future will need to be monitored closely.

DATA SUBMISSION AND ANALYSES

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

Aggregate, non-identifiable data were submitted to the Partnership by cervical cancer screening programs in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. Information was not available from the Yukon, the Northwest Territories, Nunavut or Québec. Not every province was able to submit data for all indicators for various reasons, including data unavailability and incompleteness, human resource issues, and lack of information system capacity and technical resources. Table 2 summarizes the availability of data for each report by province and territory.

TABLE 2

Summary of Data Availability by Province for the 2006–08 And 2009–11 Reports

INDICATOR	BC	AB	SK	MB	ON	NB	NS	PEI	NL
PARTICIPATION RATE	✓* ✓*	✓ ✓	✓ ✓	✓ ✓*	✓* ✓*		✓ ✓	✓	✓ ✓
RETENTION RATE	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓		✓ ✓		✓ ✓
SPECIMEN ADEQUACY RATE	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓		✓ ✓	✓	✓ ✓
SCREENING TEST RESULTS	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓		✓ ✓	✓	✓ ✓
CYTOLOGY TURNAROUND TIME	✓ ✓		✓ ✓	✓ ✓	✓		✓ ✓	✓	✓ ✓
TIME TO COLPOSCOPY	✓ ✓	✓ ✓		✓ ✓	✓		✓		✓
HISTOLOGICAL INVESTIGATION	✓ ✓	✓		✓			✓	✓	
CYTOLOGY-HISTOLOGY AGREEMENT	✓ ✓	✓ ✓		✓ ✓			✓	✓	
PRE-CANCER INCIDENCE RATE	✓ ✓	✓		✓ ✓			✓	✓	✓ ✓
CANCER INCIDENCE RATE	✓ ✓	✓ ✓	✓	✓ ✓	✓	✓ ✓	✓ ✓	✓	✓ ✓
CANCERS DIAGNOSED AT STAGE 1	✓	✓ ✓	✓ ✓	✓ ✓			✓ ✓	✓	✓ ✓
SCREENING HISTORY IN CASES OF INVASIVE CANCER	✓ ✓		✓	✓ ✓	✓		✓ ✓	✓	✓ ✓

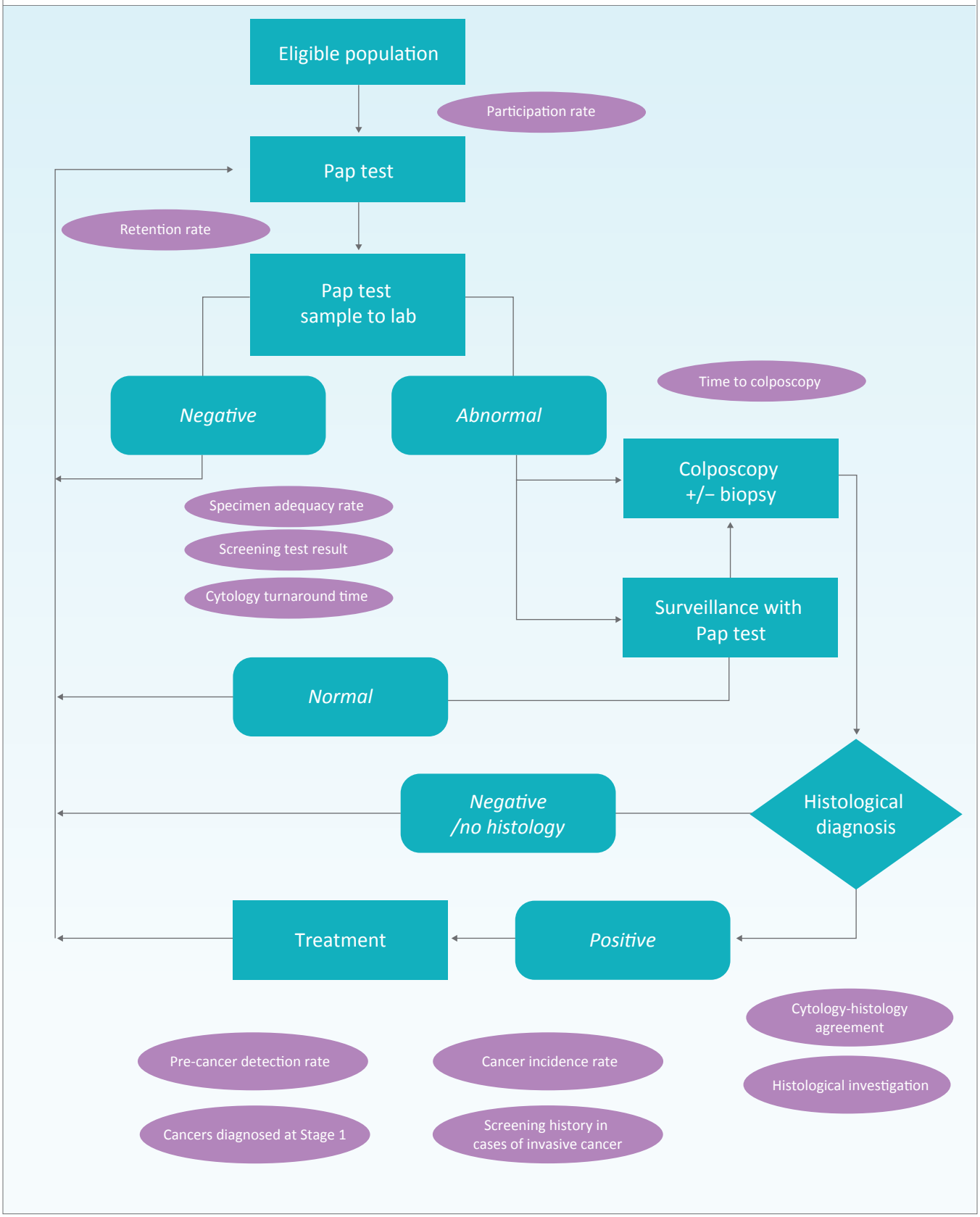
Data was not available for Yukon, Northwest Territories, Nunavut or Québec.

✓ Data available for 2006–08 report

✓ Data available for 2009–11 report

* Corrected for hysterectomy

FIGURE 2
Cervical Screening Indicators



Results

Results are presented for women aged 20 to 69 years for the years 2009–11. The level of program organization varies across the country; therefore, the information in this report is limited to provinces with available data and includes British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador (Table 2). All provinces and territories were kept informed of the process regardless of whether they were able to submit data.

Indicator variability among 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. In most cases, the submitting provinces were able to provide more data, especially for hysterectomy-corrected participation rate, time to colposcopy, histological investigation, and cytology-histology correlation. This report focuses on the results for each indicator but does not analyze in detail the specific reasons for variability across Canada.

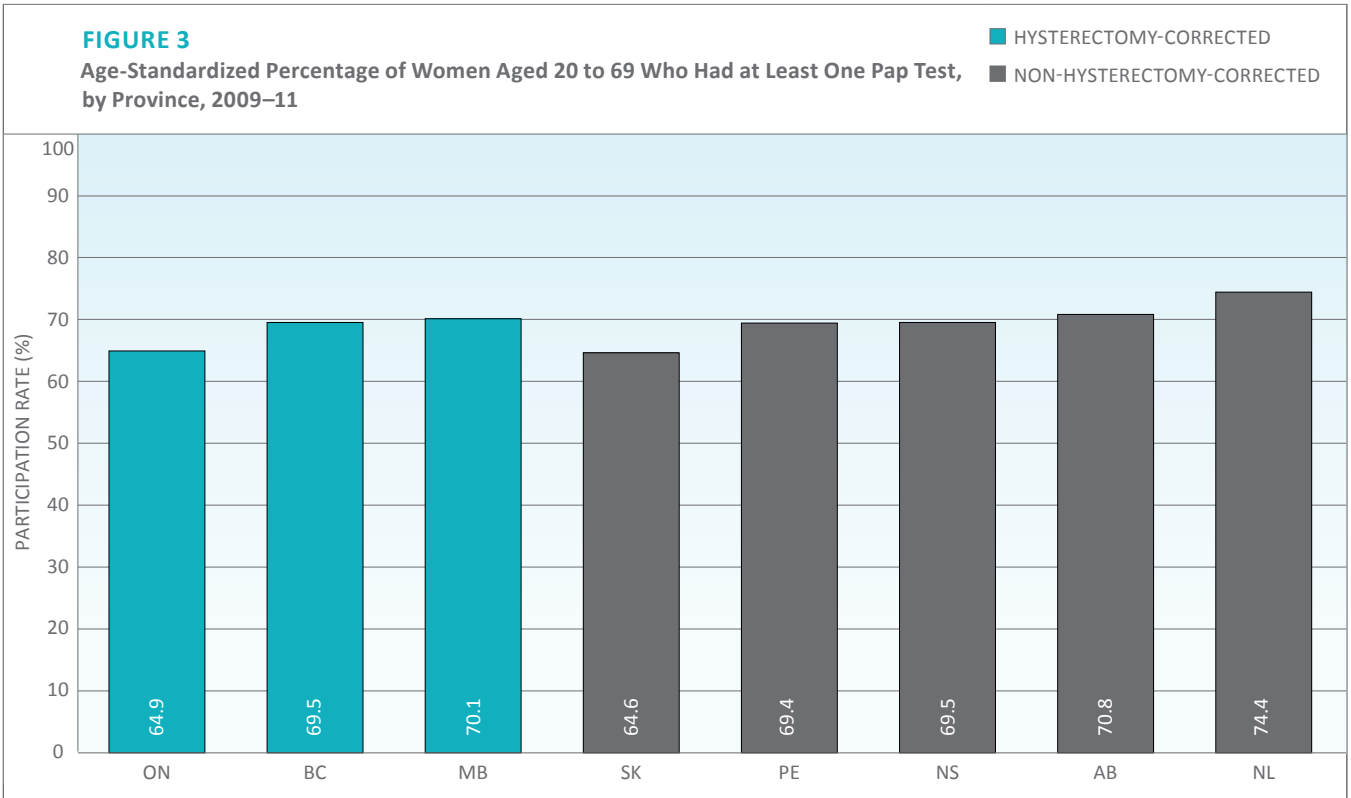
PARTICIPATION RATE

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 because these women do not need routine screening. Not correcting for hysterectomy is likely to underestimate participation rates in older women. At this time, participation rates excluding women who have had a hysterectomy were available for British Columbia, Manitoba, and Ontario.

Figure 3 shows the age-standardized percentage of women aged 20 to 69 who had at least one Pap test from 2009-11 for provinces that did correct for hysterectomy and those that did not correct for hysterectomy, respectively. Participation rates corrected for hysterectomy ranged from 64.9% to 70.1%, while participation rates not corrected for hysterectomy ranged from 64.6% to 74.4%. To correct for hysterectomy, Ontario used administrative data to identify and remove women who had a prior hysterectomy from the numerator and denominator. British Columbia excluded all non-cervical cytology tests (e.g., vaginal vault tests) and adjusted the denominator based on historical hysterectomy rates in the province. Manitoba used administrative data to identify women who had a prior hysterectomy and removed Pap tests that occurred after a hysterectomy from the numerator and denominator.

FIGURE 3

Age-Standardized Percentage of Women Aged 20 to 69 Who Had at Least One Pap Test, by Province, 2009–11

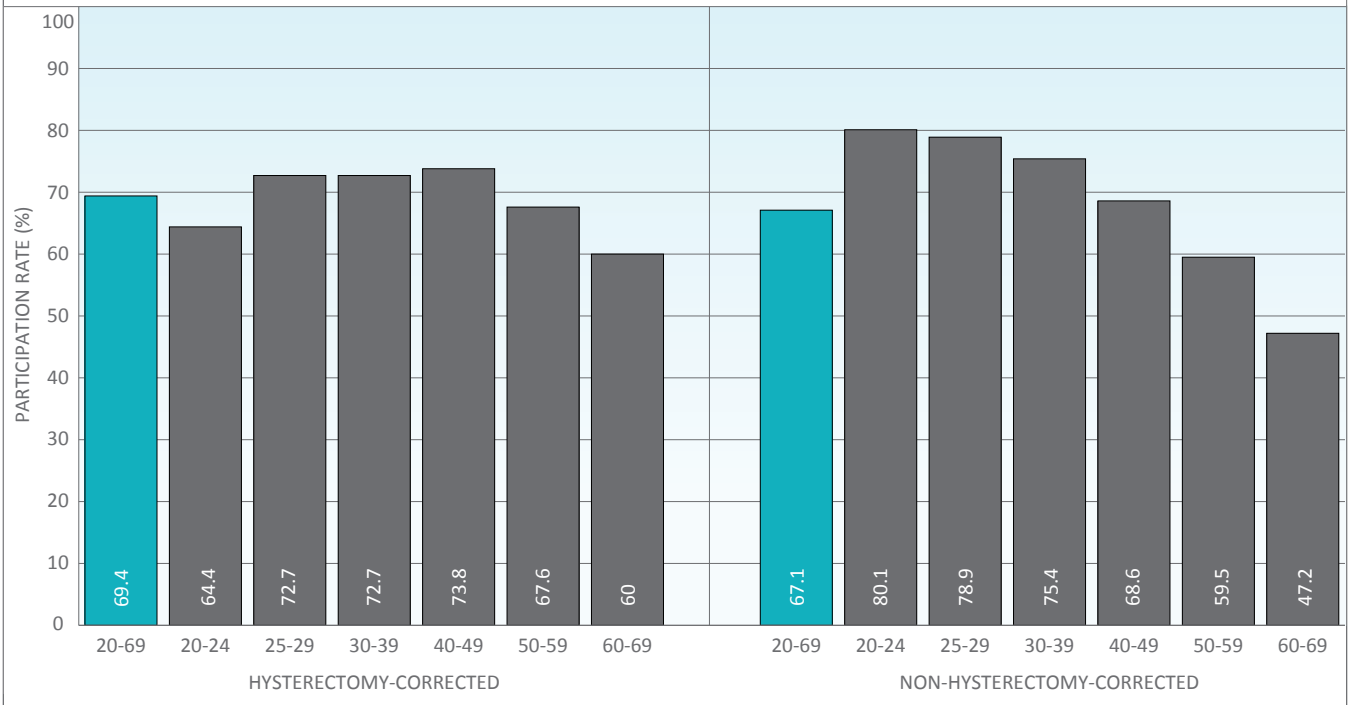


BC, MB and ON provided participation rates corrected for hysterectomy. BC excluded all non-cervical cytology tests (e.g., vaginal vault tests) and adjusted the denominator based on historical provincial hysterectomy rates. MB used administrative data to identify women who had a prior hysterectomy and removed Pap tests done after a hysterectomy from the numerator and denominator. ON used administrative data to identify and remove women who had a prior hysterectomy from the numerator and denominator. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). All provinces except ON are age standardized to the 1991 Canadian population. ON is age standardized to the 2006 Canadian population, which may result in a lower participation rate owing to a larger number of older women (compared with 1991), who tend to have lower screening rates.

Figure 4 shows the percentage of women who had at least one Pap test by 10-year age groups for 2009-11. The rates are presented first for the two provinces that provided participation rates corrected for hysterectomy and then for the five provinces that provided participation rates not corrected for hysterectomy. When corrected for hysterectomy, participation was fairly uniform across age groups and decreased for women aged 50 to 59 (67.6%) and women 60 to 69 (60.0%). Non–hysterectomy corrected participation decreased from 80.1% among 20 to 24 year old women to 47.2% among 60 to 69 year old women. This data highlights the importance of correcting for hysterectomy when reviewing cervical screening rates by age group.

FIGURE 4

Percentage of Women Who Had at Least One Pap Test by Age Group, 2009–11, Provinces Combined

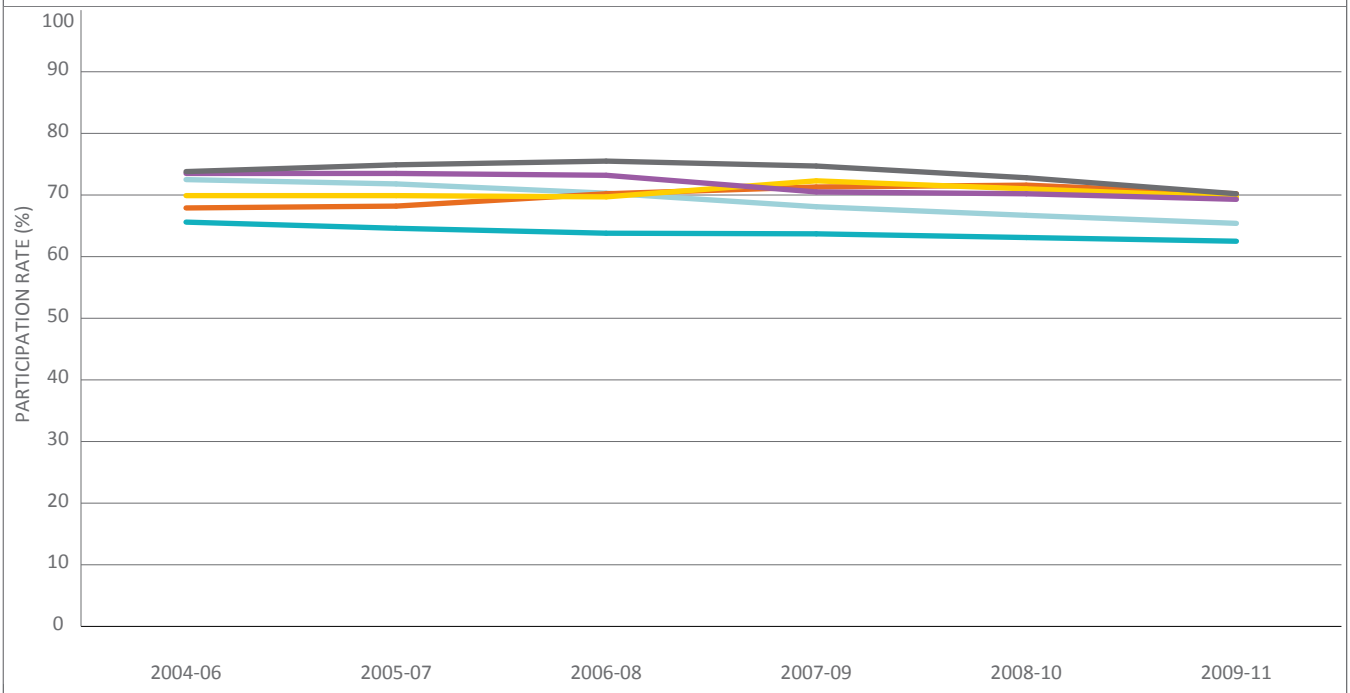


Hysterectomy-corrected data includes BC and MB. Non-hysterectomy data includes AB, SK, NS, PE and NL. To correct for hysterectomy, BC excluded all non-cervical cytology tests (e.g., vaginal vault tests) and adjusted the denominator based on historical provincial hysterectomy rates. MB used administrative data to identify women who had a prior hysterectomy and removed Pap tests that occurred after a hysterectomy from the numerator and denominator. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Figure 5 shows the age-standardized participation rates over time from 2004–06 to 2009–11 by province. Overall, participation for 20 to 69 year old women women has remained stable over time.

FIGURE 5

Percentage of Women Aged 20 to 69 Who Had at Least One Pap Test, by Province, 2004–06 to 2009–11



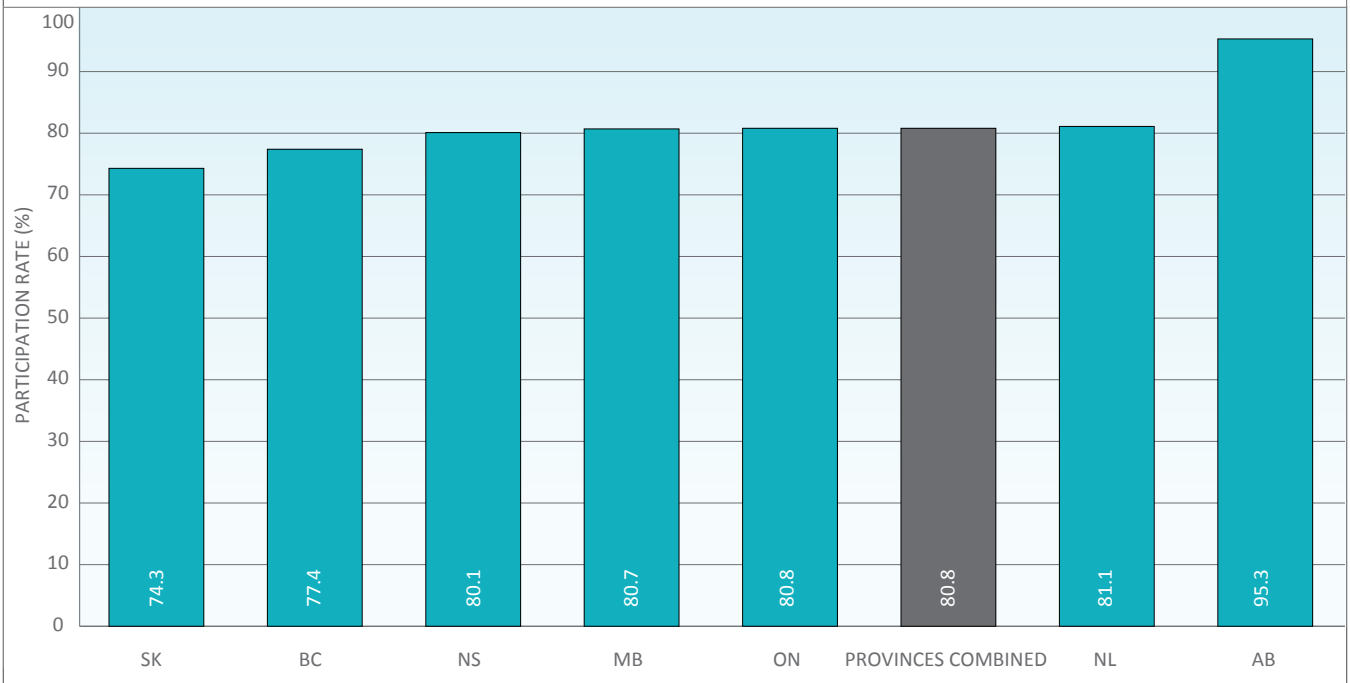
Includes BC (hysterectomy corrected for all years), AB, SK, MB (hysterectomy corrected for 2007–11), NS and NL. To correct for hysterectomy, BC excluded all non-cervical cytology tests (e.g., vaginal vault tests) and adjusted the denominator based on historical provincial hysterectomy rates. MB used administrative data to identify women who had a prior hysterectomy and removed Pap tests that occurred after a hysterectomy from the numerator and denominator. 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 6 shows the percentage of women aged 20 to 69 who had a Pap test within three years after a negative Pap test by province for 2007-08 (non–hysterectomy corrected). Retention was 80.8%, ranging from 74.3% to 95.3%.

FIGURE 6

Percentage of Women Aged 20–69 Who Had a Pap Test Within Three Years After a Negative Pap Test, by Province, 2007–08

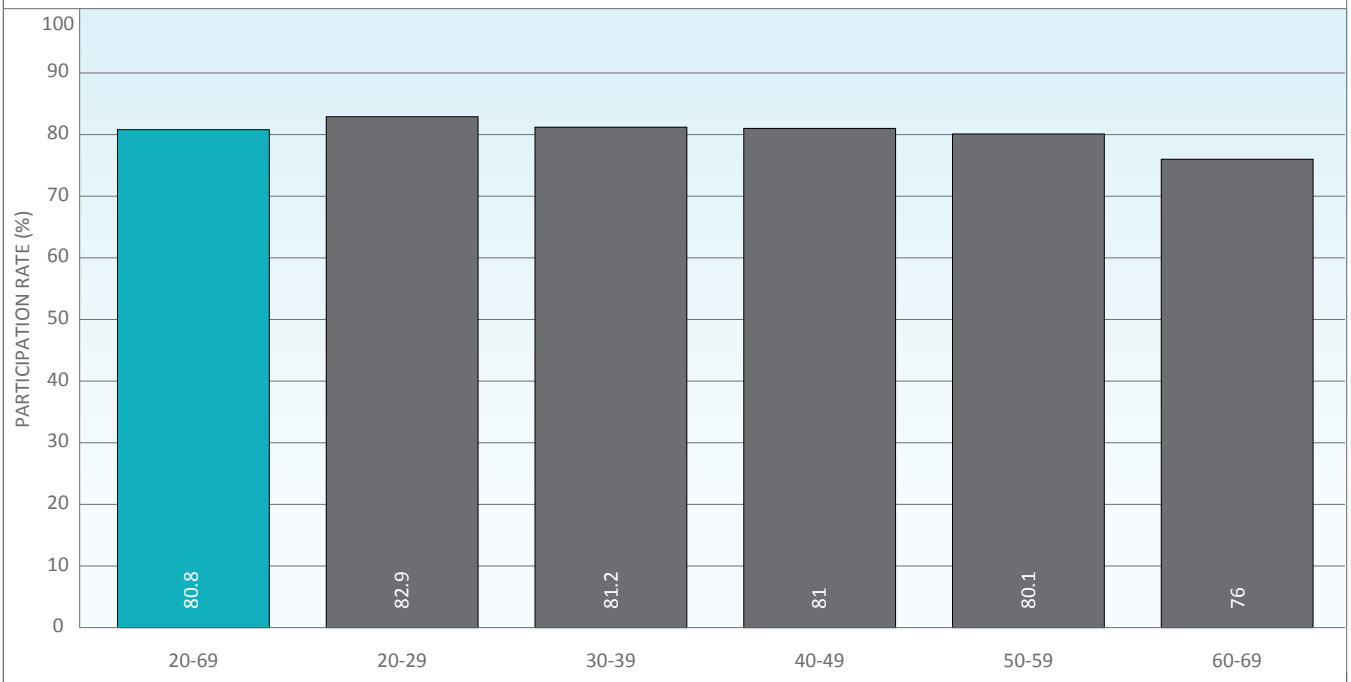


ON includes women aged 20 to 66. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

Figure 7 shows the percentage of women by age group for 2007-08 who had a Pap test within three years following a negative Pap result for all provinces combined. Retention decreased slightly with age from 82.9% in the 20 to 29 age group to 76.0% in the 60 to 69 age group. Lower retention for the 60 to 69 group may be influenced by a variety of factors, such as reaching the end of the recommended screening age range, a perceived lack of importance for post-menopausal women, or the prevalence of hysterectomy.

FIGURE 7

Percentage of Women Who Had a Pap Test Within Three Years After a Negative Pap Test by Age Group, 2007–08, Provinces Combined



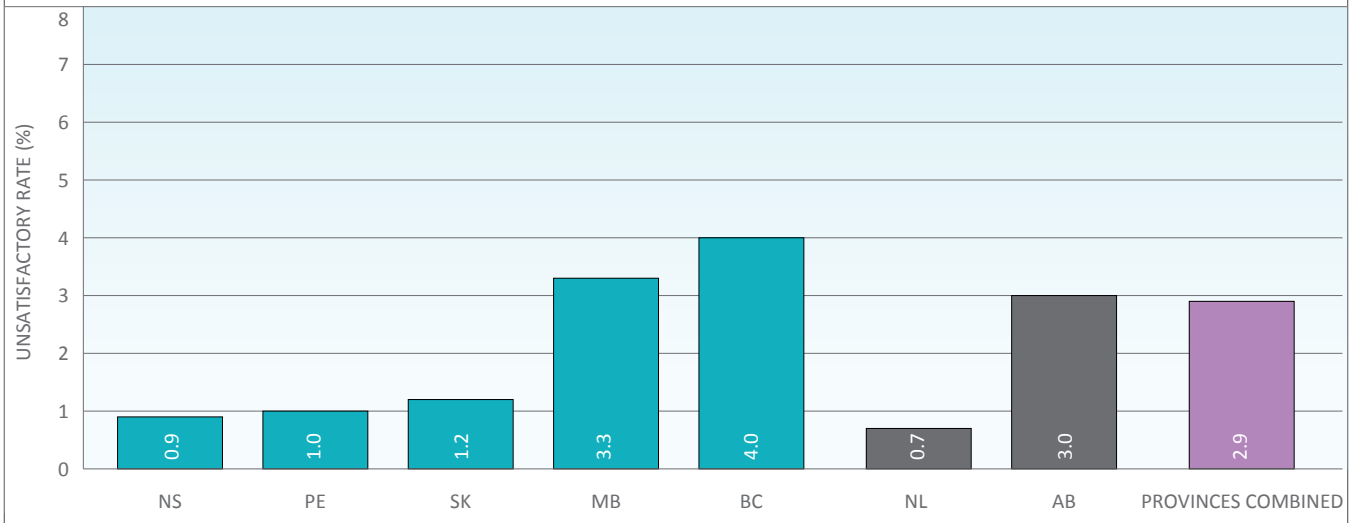
ON includes women aged 20 to 66. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

SPECIMEN ADEQUACY

Specimen adequacy is measured by 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 among health-care providers, laboratory reporting protocols, and cytology type. Conventional cytology was used in British Columbia, Saskatchewan, Manitoba, Nova Scotia and Prince Edward Island, while LBC was used in Alberta and Newfoundland and Labrador. Figure 8 shows the percentage of unsatisfactory Pap tests for women aged 20 to 69 by province for 2009–11. The percentage of unsatisfactory tests for the provinces combined was 2.9%. The percentage of unsatisfactory tests using conventional cytology ranged from 0.9% to 4.0%, and the percentage of unsatisfactory tests using LBC was 0.7% in Newfoundland and Labrador and 3.0% in Alberta. The percentage of unsatisfactory tests in Alberta was 3% because 2009–11 was the transition period from conventional to LBC cytology. The percentage of unsatisfactory tests has since decreased.

FIGURE 8

Percentage of Unsatisfactory Pap Test Results for Women Aged 20 to 69, by Province, 2009–11



Not all rejected Pap tests in NL may have been excluded from the numerator. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). The percentage of unsatisfactory Pap tests in Alberta was 3% because 2009–11 was the transition period from conventional cytology to LBC. The percentage of unsatisfactory tests has since decreased.
LBC = liquid-based cytology

SCREENING TEST RESULTS

Screening test results are presented as the percentage of women in each cytology result category. Because some women had more than one Pap test in the period examined, only the most severe Pap test result on a satisfactory sample was included (using the 2001 Bethesda System of classification[8]; see Appendix D). Screening test results are influenced by the rate of cervical abnormalities in the population, interpretation, and reporting criteria. The percentage of abnormal Pap test results affects the volume of colposcopy and other required procedures.

Table 3 shows the percentage of women aged 20 to 69 categorized by their most severe Pap test result, by province, for 2009-11. The percentage of women who had a negative Pap test result was 95.0%. The percentage of women who had an abnormal cytology result was 5.0% (range, 3.8% to 6.4%). Overall, 3.9% of cytology results were low-grade (ASC-US or LSIL) and 1.1% were high-grade (AGC, ASC-H, or HSIL or more severe).

TABLE 3
Percentage of Women Aged 20 to 69 by Most Severe Abnormal Pap Test Result, by Province, 2009–11

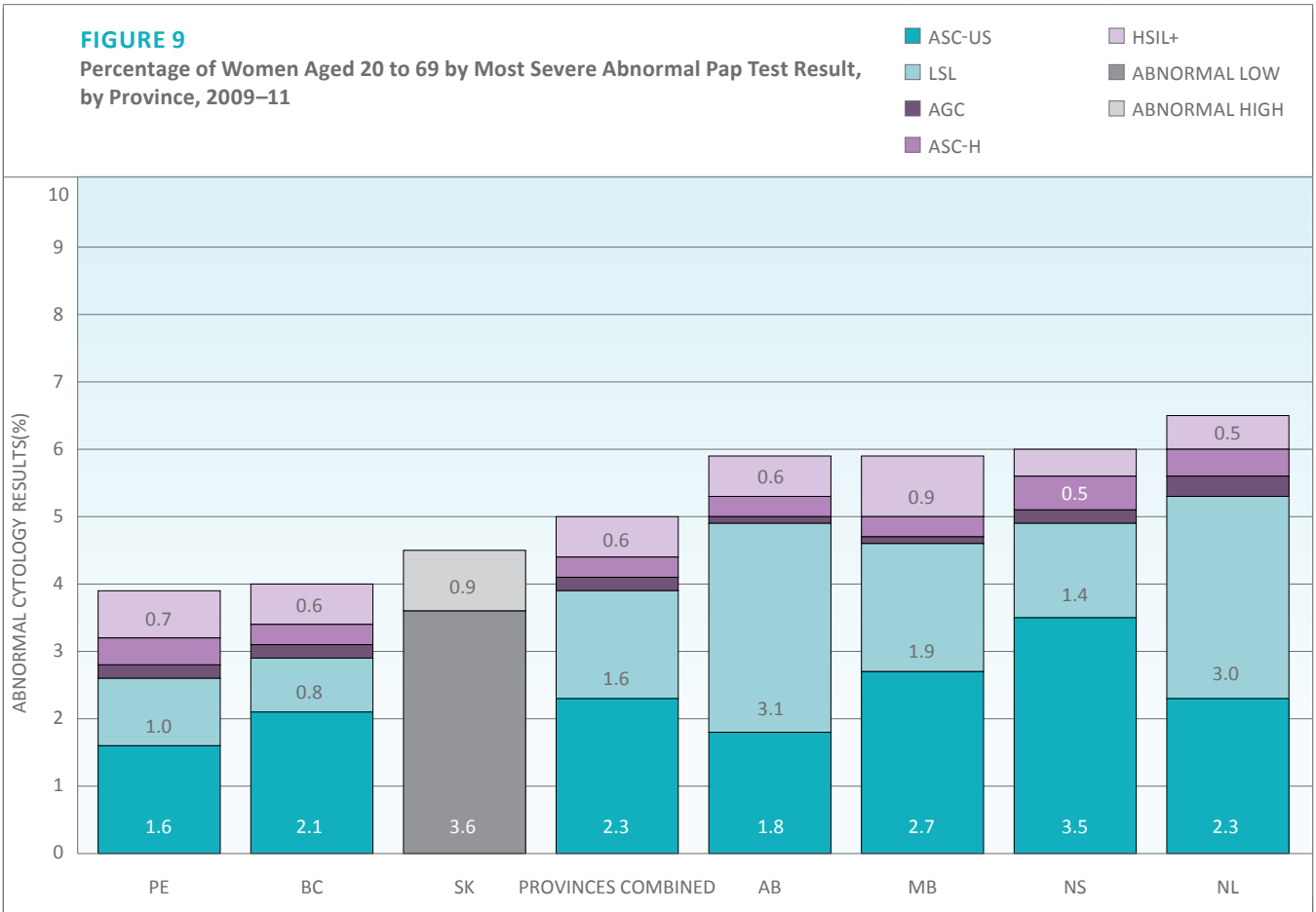
PAP TEST RESULT	PROVINCES COMBINED	BC	AB	SK	MB	NS	PE	NL
NEGATIVE	95.0	96.1	94.1	95.5	94.1	93.9	96.2	93.6
ABNORMAL	5.0	3.9	5.9	4.5	5.9	6.1	3.8	6.4
LOW-GRADE	3.9	2.9	4.9	3.6	4.6	4.9	2.6	5.3
HIGH-GRADE	1.1	1.1	1.0	0.9	1.3	1.1	1.3	1.2

Low-grade includes atypical squamous cells of undetermined significance and low-grade squamous intraepithelial lesions. High-grade includes atypical glandular cells; atypical squamous cells, high-grade; and high-grade squamous intraepithelial lesions. For definitions of low and high grade for Saskatchewan, refer to Appendix D.

Figure 9 illustrates the percentage of women aged 20 to 69 categorized by their most severe abnormal Pap test result (ASC-US, LSIL, AGC, ASC-H or HSIL+) by province for 2009–11.

FIGURE 9

Percentage of Women Aged 20 to 69 by Most Severe Abnormal Pap Test Result, by Province, 2009–11

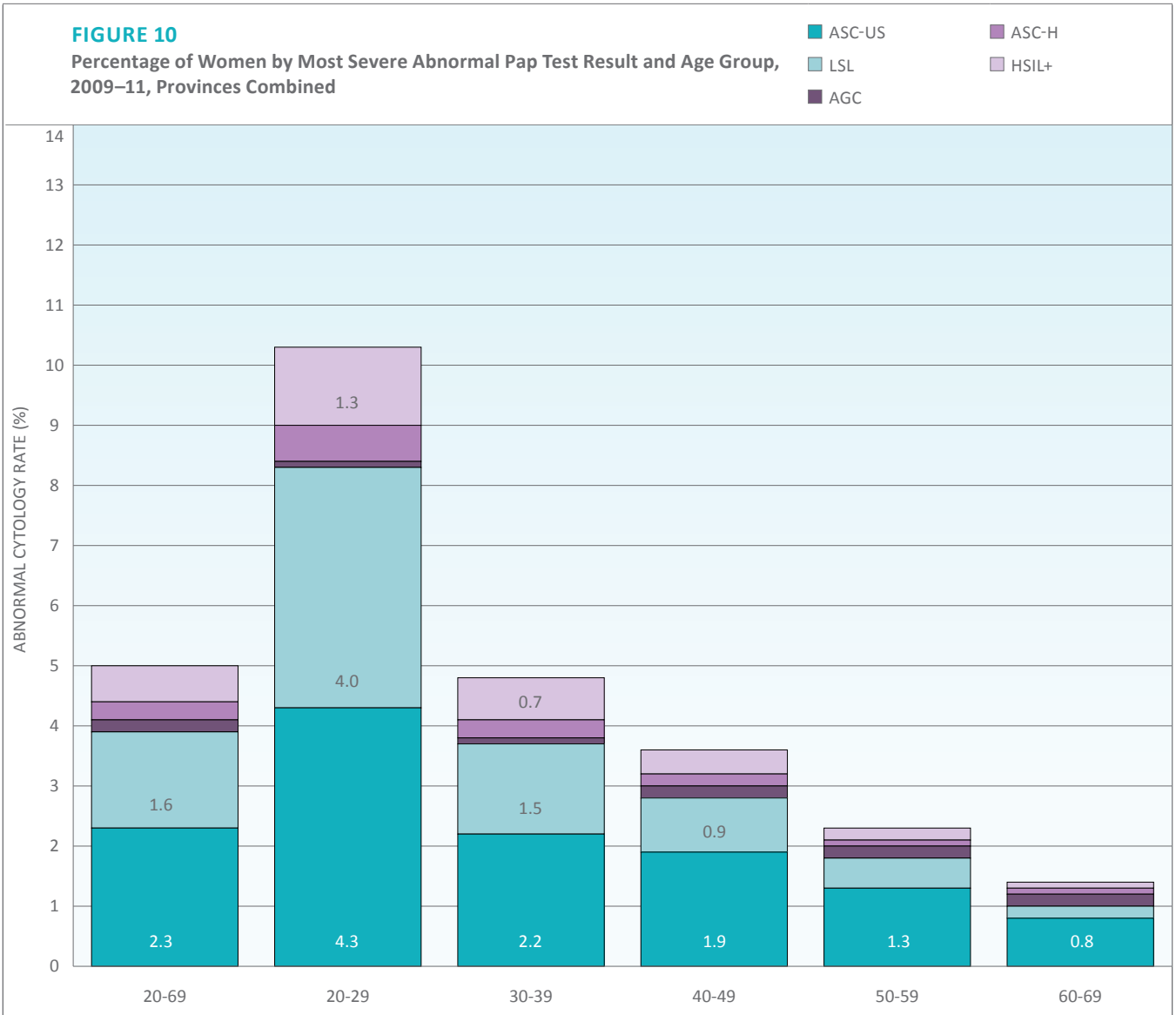


SK provided 3 cytology categories: negative, abnormal low and abnormal high. Refer to Appendix D for the cytology outcomes included in each category.
AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). HSIL+ includes high-grade squamous intraepithelial lesion, carcinoma in situ and invasive carcinoma.
ASC-US = atypical squamous cells of undetermined significance; LSIL = low-grade squamous intraepithelial lesions; AGC = atypical glandular cells; ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions
Percentages that are not stated on the figure are <0.5%.

Figure 10 and Table 4 categorize women by their most severe Pap test result and age group. The percentage of women who had a negative Pap test result increased with age from 89.8% for women aged 20 to 29 to 98.5% for women 60 to 69. The percentage of women who had an HSIL+ Pap test result decreased with age from 1.3% for women aged 20 to 29 to 0.1% for women 60 to 69.

FIGURE 10

Percentage of Women by Most Severe Abnormal Pap Test Result and Age Group, 2009–11, Provinces Combined



Includes BC, AB, MB, NS, PE and NL. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). HSIL+ includes high-grade squamous intraepithelial lesion, carcinoma in situ and invasive carcinoma.
ASC-US = atypical squamous cells of undetermined significance; LSIL = low-grade squamous intraepithelial lesions; AGC = atypical glandular cells; ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions
Percentages that are not stated on the figure are <0.5%.

TABLE 4
Percentage of Women by Most Severe Abnormal Pap Test Result and by Age Group, 2009–11, Provinces Combined

	AGE GROUP					
PAP TEST RESULT	20–69	20–29	30–39	40–49	50–59	60–69
NEGATIVE	95.0	89.8	95.0	96.3	97.7	98.5
ASC-US	2.3	4.3	2.2	1.9	1.3	0.8
LSIL	1.6	4.0	1.5	0.9	0.5	0.2
AGC	0.2	0.1	0.1	0.2	0.2	0.2
ASC-H	0.3	0.6	0.3	0.2	0.1	0.1
HSIL+	0.6	1.3	0.7	0.4	0.2	0.1
TOTAL ABNORMAL	5.0	10.3	4.8	3.6	2.3	1.4

Includes BC, AB, MB, NS, PE and NL. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). HSIL+ includes high-grade squamous intraepithelial lesion, carcinoma in situ and invasive carcinoma.
ASC-US = atypical squamous cells of undetermined significance; LSIL = low-grade squamous intraepithelial lesions; AGC = atypical glandular cells; ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions

CYTOLOGY TURNAROUND TIME

Cytology turnaround time is the median number of days from the date the Pap test was taken to the date the laboratory issued the Pap test report 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 5 shows the median cytology turnaround time for women aged 20 to 69, by province, for 2009, 2010 and 2011. The median cytology turnaround time ranged from 13 to 44 days in 2009, 11 to 51 days in 2010 and 13 to 57 days in 2011. Cytology turnaround time was between 13 and 17 days in most provinces.

TABLE 5
Median Number of Days from Date of Pap Test to Issuance of Pap Test Report, by Province, for Women Aged 20 to 69

PROVINCE	2009	2010	2011
BC*	16	12	23
SK	14	11	13
MB	13	12	13
NS*	44	51	57
PE	18	16	14
NL	13	20	17

*Increase in turnaround time in BC in 2011 relates reporting changes that resulted in increased workload for pathologists. The long cytology turnaround time in NS for 2009–11 is expected to decrease in future years with new practices and human resources in place to support workload volumes and quality assurance procedures.

TIME TO COLPOSCOPY

A colposcopy is a visual examination of the cervix, sometimes accompanied by a biopsy to confirm a cervical abnormality. Time to colposcopy is the percentage of women with a high-grade abnormal Pap test result (AGC, ASC-H, or HSIL+) who had a follow-up colposcopy examination within three, six, nine and 12 months of the Pap test. Time to colposcopy excludes colposcopies performed within seven days of the Pap test because the Pap test may have been taken at the time of colposcopy and is unlikely to be the reason for the colposcopy referral. Time to colposcopy is influenced by the cytology turnaround time. Results may also differ by province because of the completeness and availability of colposcopy data.

Table 6 and Figures 11 and 12 show the percentage of women aged 20 to 69 with a high-grade abnormal Pap test result who had a colposcopy within three, six, nine and 12 months for 2009-10. Since an AGC cytology outcome may result in lower colposcopy referral rates, ASC-H and HSIL+ outcomes are shown with and without the AGC outcomes.[9]

The number of provinces able to report time to colposcopy has increased from three for 2006–08 to six for 2009–11. The percentage of women who had an AGC, ASC-H, or HSIL+ cytology outcome who had a colposcopy within 12 months was 82.7%, ranging from 82.0% to 84.7%. The percentage of women who had an ASC-H or HSIL+ cytology outcome who had a colposcopy within 12 months was 85.6% (range, 76.0% to 88.4%). The differences are small but may reflect a lower colposcopy referral rate for AGC.[9]

TABLE 6

Percentage of Women Aged 20 to 69 with High-grade (ASC-H or HSIL+) and AGC Pap Test Results, or High-grade Pap Test Results, Who Had a Follow-up Colposcopy, by Province, 2009-10

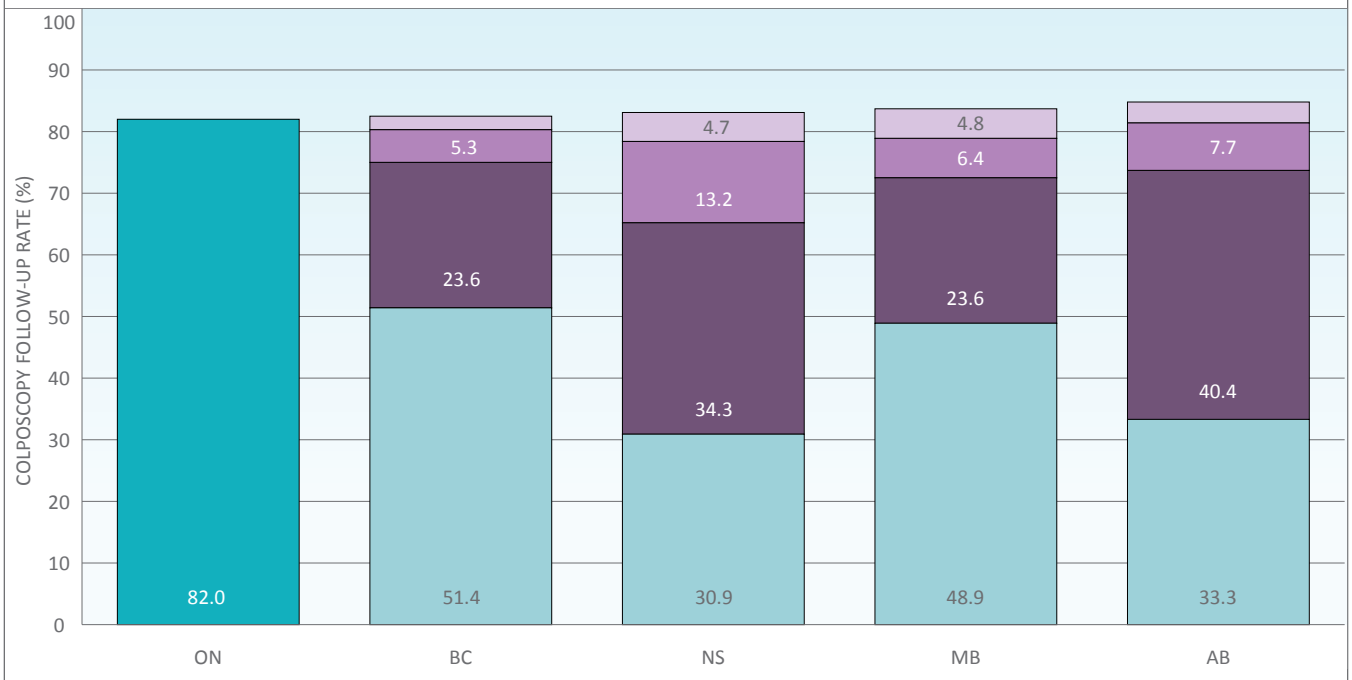
		NUMBER OF MONTHS				
PROVINCE	RESULT	0–3	3–6	6–9	9–12	WITHIN 12
PROVINCES COMBINED	High-grade and AGC	58.0	18.2	4.4	2.0	82.7
	High-grade	45.7	29.4	7.2	3.3	85.6
BC	High-grade and AGC	51.4	23.6	5.3	2.2	82.5
	High-grade	53.5	24.4	5.4	2.3	85.6
AB	High-grade and AGC	33.3	40.4	7.7	3.4	84.7
	High-grade	33.5	41.7	7.5	3.6	86.4
MB	High-grade and AGC	48.9	23.6	6.4	4.8	83.7
	High-grade	49.3	23.8	6.6	5.0	84.7
ON	High-grade and AGC	82.0 (0–6 months)		—	—	—
	High-grade	—	—	—	—	—
NS	High-grade and AGC	30.9	34.3	13.2	4.7	83.1
	High-grade	33.0	36.4	14.2	4.8	88.4
NL	High-grade and AGC	—	—	—	—	—
	High-grade	50.7	18.6	4.1	2.5	76.0

High-grade includes ASC-H and HSIL+. BC does not receive 100% of colposcopy reports and therefore includes only reports submitted to the screening program. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). ON provided data for 0–182 days (0–6 months) and did not provide an ASC-H/HSIL+ breakdown. NL did not provide AGC data in 2009–10 and provided 2010 data for ASC-H and HSIL+. HSIL+ includes high-grade squamous intraepithelial lesion, carcinoma in situ and invasive carcinoma.

ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions or more severe; AGC = atypical glandular cells

FIGURE 11

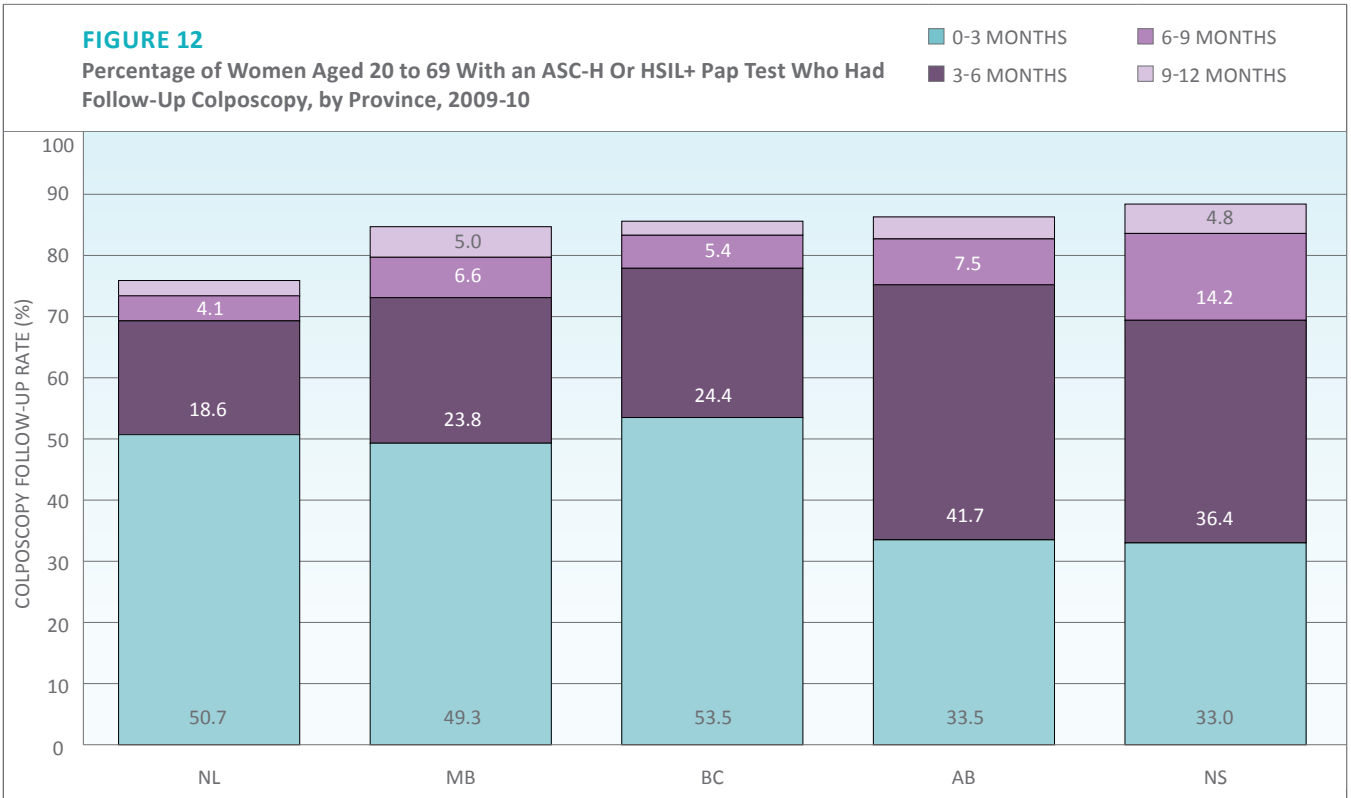
Percentage of Women Aged 20 to 69 With an AGC, ASC-H Or HSIL+ Pap Test Result Who Had Follow-Up Colposcopy, by Province, 2009-10



ON provided data for 0–182 days (0–6 months) and did not provide an ASC-H/HSIL+ breakdown. BC does not receive 100% of colposcopy reports and therefore includes only reports submitted to the screening program. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). HSIL+ includes high-grade squamous intraepithelial lesion, carcinoma in situ and invasive carcinoma. AGC = atypical glandular cells; ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions or more severe
Percentages that are not stated on the figure are <4%.

FIGURE 12

Percentage of Women Aged 20 to 69 With an ASC-H Or HSIL+ Pap Test Who Had Follow-Up Colposcopy, by Province, 2009-10



NL provided 2010 data. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). BC does not receive 100% of colposcopy reports and therefore includes only reports submitted to the screening program. HSIL+ includes high-grade squamous intraepithelial lesion, carcinoma in situ and invasive carcinoma.
ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions or more severe
Percentages that are not stated on the figure are <4%.

HISTOLOGICAL INVESTIGATION RATE

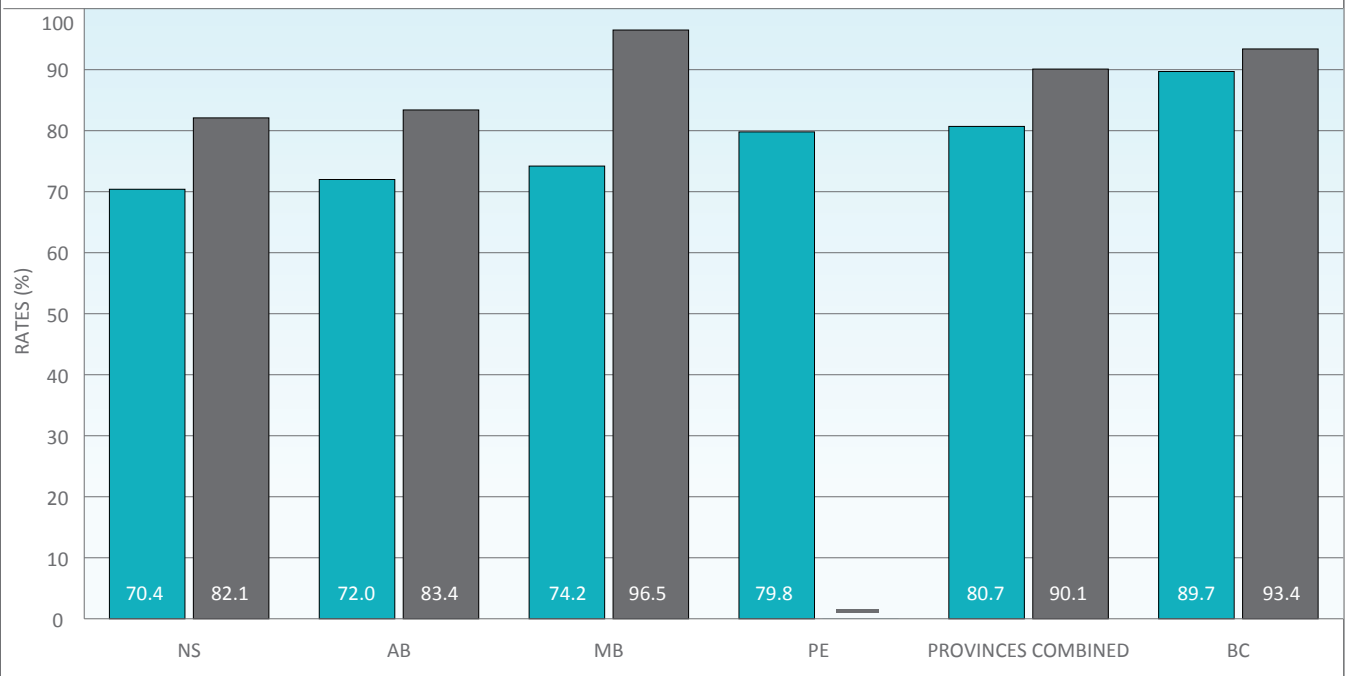
Histological investigation rate is the percentage of women with a high-grade abnormal Pap test result (ASC-H or HSIL+) who had histological investigation (biopsy) within the following 12 months. Histological investigation may vary by region and is influenced by the source of histology information, reasons for not performing histological investigation (i.e., pregnancy or the inability to identify the area of abnormality) and most importantly, the time to colposcopy. Therefore, information on the histological investigation was calculated two ways: as a proportion of the number of women who had a high-grade abnormal Pap test and as a proportion of the number of women who had a high-grade abnormal Pap test who also had a colposcopy.

Histological investigation rate was available for five provinces. Figure 13 shows the percentage of women who had an ASC-H or HSIL+ Pap test result who had histological investigation within the next 12 months by province. The percentage of women who had an ASC-H or HSIL+ Pap test result, a colposcopy and histological investigation within the next 12 months is also shown.

Overall, the percentage of women aged 20 to 69 who had an ASC-H or HSIL+ Pap test result who had histological investigation within 12 months for 2009-10 was 80.7%. The rate ranged from 70.4% to 89.7%. As expected, the percentage of women who had an ASC-H or HSIL+ test result and a colposcopy who had histological investigation within 12 months was higher, at 90.1% (range, 82.1% to 96.5%).

FIGURE 13

Percentage of Women Aged 20 to 69 Who Had an ASC-H Or HSIL+ Pap Test Result and Histological Investigation, or Colposcopy and Histological Investigation, Within 12 Months of the Pap Test, by Province



AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). PE did not exclude all histological investigations that were performed within 7 days of the date of the Pap test. The percentage of women who had a colposcopy and a histological investigation was not available for PE. Not corrected for hysterectomy. HSIL+ includes high-grade squamous intraepithelial lesion, carcinoma in situ and invasive carcinoma.
ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions or more severe

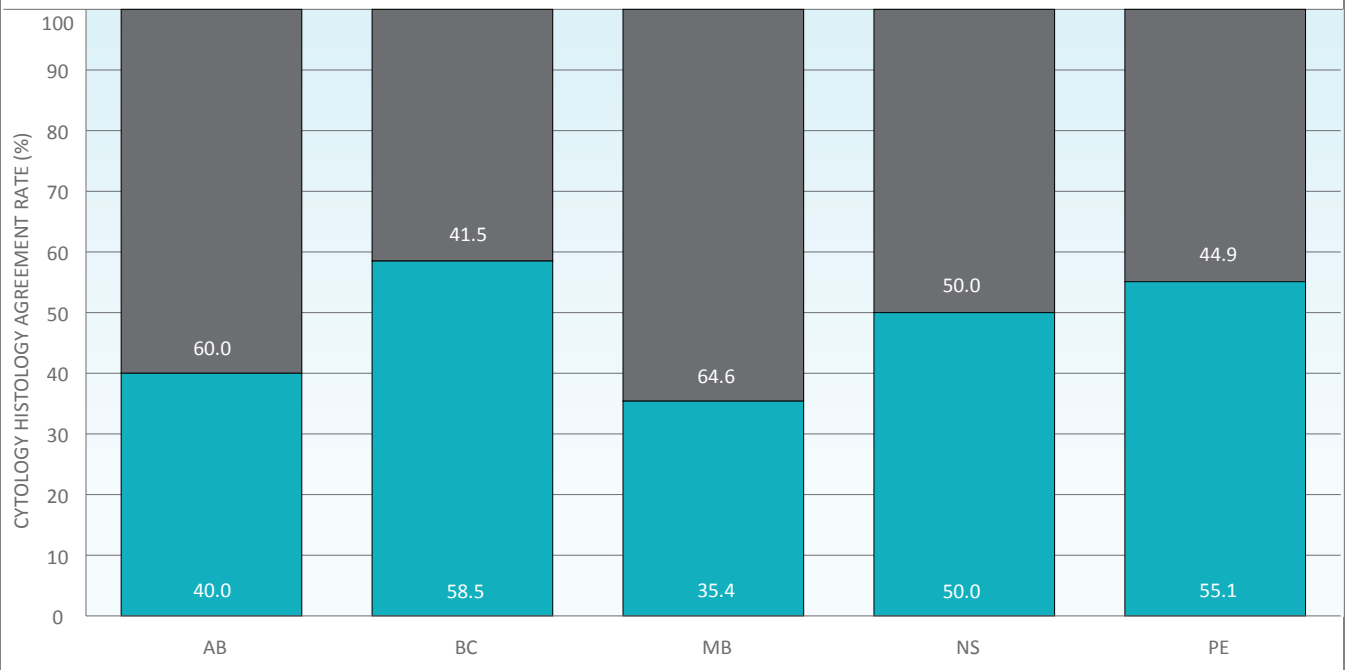
CYTOLOGY-HISTOLOGY AGREEMENT

The cytology-histology agreement is the percentage of high-grade Pap test results (ASC-H or HSIL+) with histological confirmation of CIN 2 (moderate dysplasia) or CIN 3+ (severe dysplasia, carcinoma in situ, or invasive cervical cancer). Appendix E provides a more detailed description of the classification of CIN. Histological confirmation includes any cervical, vaginal, or endocervical 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 colposcopy) can create longer wait times for women who do need a colposcopy. It should be noted, however, that a single biopsy may not exclude cervical neoplasia.

Cytology-histological agreement was available for five provinces (an increase from three in the 2006–08 report). Figure 14 shows the cytology-histology agreement for ASC-H Pap test results for women aged 20 to 69 for 2009-10. The percentage of biopsy results that agreed with the Pap test result (a CIN 2 or CIN 3+ biopsy result and an ASC-H Pap test result) ranged from 35.4% to 58.5%. The diagnosis of ASC-H is inherently uncertain but these correlation rates are similar to those in reported studies.[10,11]

FIGURE 14

Percentage of ASC-H Pap Test Results for Women Aged 20 to 69 Who Had CIN 2 or CIN 3+ Outcomes (Agreement Between Cytology and Histology) or < CIN 2 Outcomes (No Agreement Between Cytology and Histology), by Province, 2009-10

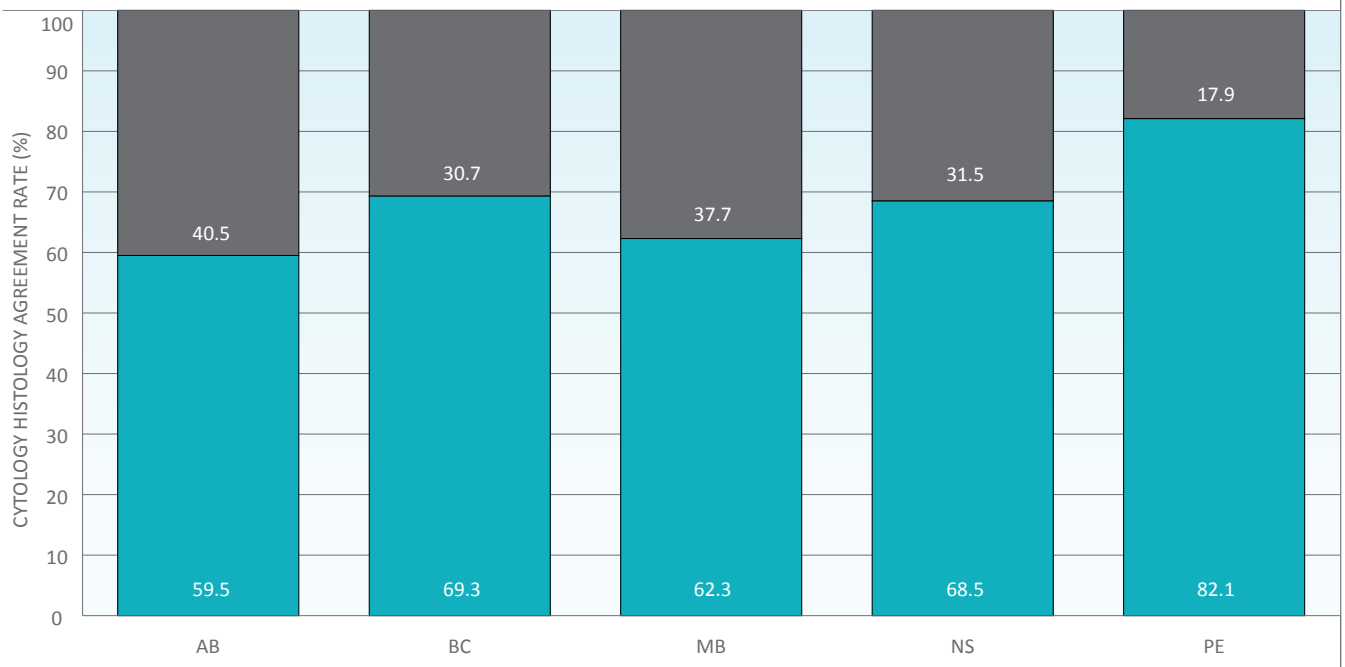


AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). Histological confirmation includes any cervical, vaginal or endocervical histology result.
ASC-H = ASC-H = atypical squamous cells, high-grade; CIN = cervical intraepithelial neoplasia

Figure 15 shows the cytology-histology agreement for HSIL+ Pap test results for women aged 20 to 69 for 2009-10. The percentage of biopsy results that agreed with the Pap test result (a CIN 2 or CIN 3+ biopsy result and an HSIL+ Pap test result) ranged from 59.5% to 82.1%.

FIGURE 15

Percentage of HSIL+ Pap Test Results for Women Aged 20 to 69 Who Had CIN 2 or CIN 3+ Outcomes (Agreement Between Cytology and Histology) or < CIN 2 Outcomes (No Agreement Between Cytology and Histology), by Province, 2009-10



AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). Histological confirmation includes any cervical, vaginal or endocervical histology result. HSIL+ includes high-grade squamous intraepithelial lesion, carcinoma in situ and invasive carcinoma.
HSIL+ = high-grade squamous intraepithelial lesions or more severe; CIN = cervical intraepithelial neoplasia

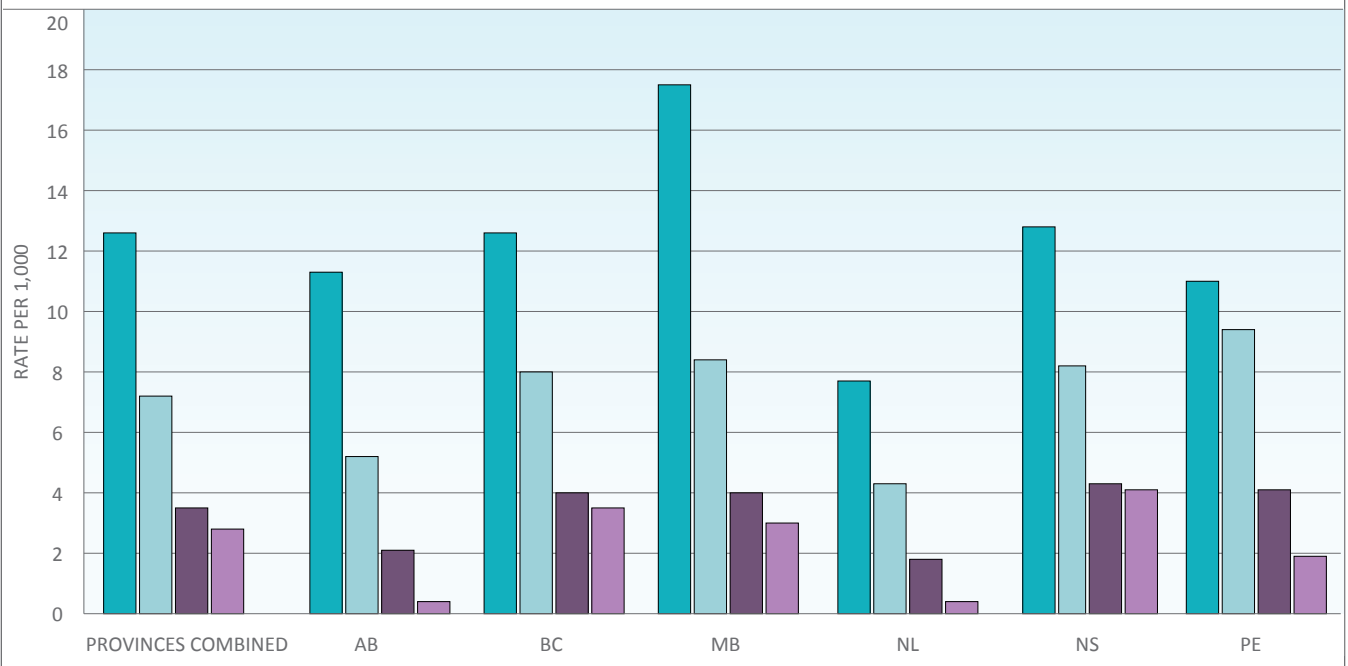
PRE-CANCER INCIDENCE RATE

The pre-cancer incidence rate is the number of pre-cancerous lesions (CIN 2 and CIN 3 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 incidence rate may be related to the availability of histology data.

Figure 16 shows the number of women diagnosed with a pre-cancerous lesion per 1,000 women screened for 2009-10, by province and age group. The pre-cancerous incidence rate for all provinces combined was 5.8 per 1,000 women screened, ranging from 3.1 to 7.5 per 1,000. The pre-cancer incidence rate was highest for women aged 20 to 29 (12.6 per 1,000 women screened), which reflects the increased prevalence of HPV infections in younger women. The pre-cancer incidence rate decreased with age.

FIGURE 16

Number of Women Diagnosed With a Pre-Cancerous Lesion per 1,000 Women Screened, by Province and Age Group, 2009-10



Includes BC, AB, MB, NS, PE and NL. NL includes CIN 3 only. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). NL includes CIN 3 only. Pre-cancerous lesions include CIN 2 (moderate dysplasia) and CIN 3 (severe dysplasia and cervical carcinoma in situ, excluding adenocarcinoma in situ).
CIN = cervical intraepithelial neoplasia

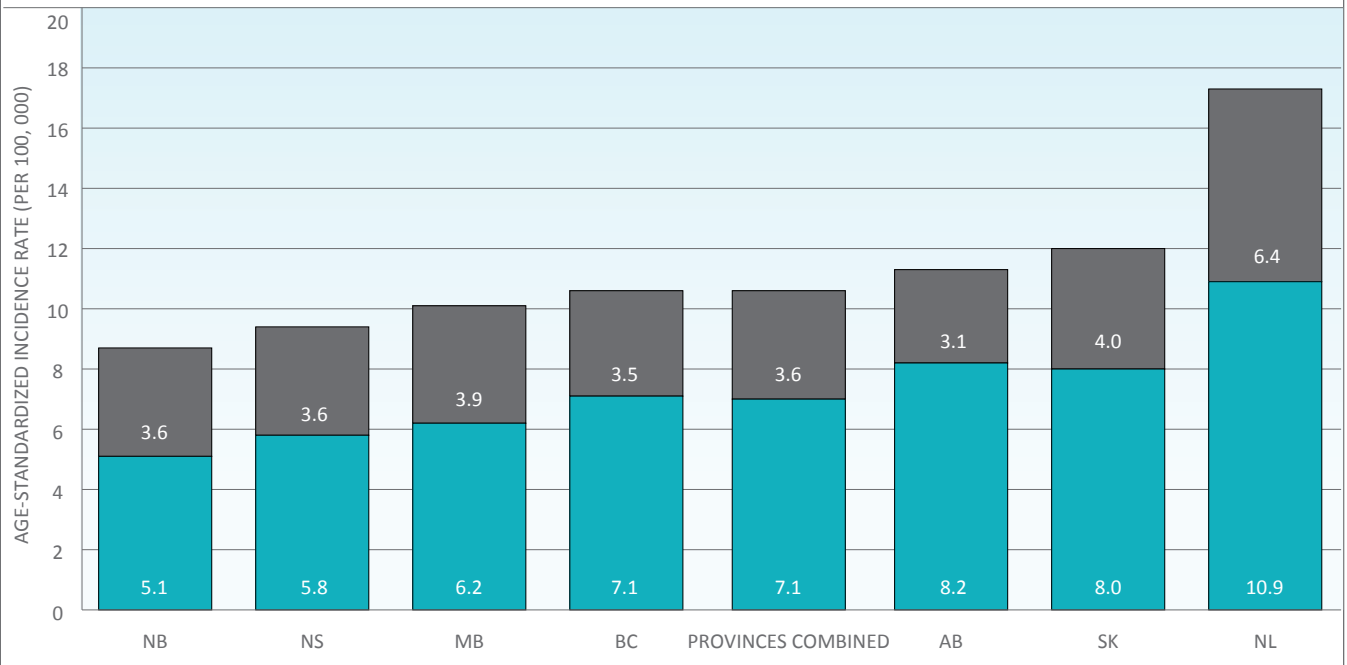
CANCER INCIDENCE

Cervical cancer incidence is the number of new cases of invasive cervical cancer per 100,000 women aged 20 years or older. Invasive cervical cancer incidence is provided for squamous cell cervical cancers and all non–squamous cell cervical cancers (adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers).

Figure 17 shows the age-standardized invasive cervical cancer incidence per 100,000 women, by province and histology (squamous cell versus non–squamous cell), from 2009-10 for seven provinces. The invasive cervical squamous cell cancer incidence rate for these provinces combined was 7.1 per 100,000 women (range, 5.1 to 10.9). The invasive cervical non–squamous cell cancer incidence rate for these provinces combined was 3.6 per 100,000 women (range, 3.1 to 6.4). These numbers are comparable to those shown in the previous report, which reported only a combined cancer rate.

FIGURE 17

Age-standardized Invasive Cervical Cancer Incidence Rate per 100,000 Women, by Province, Age 20 and over, 2009-10

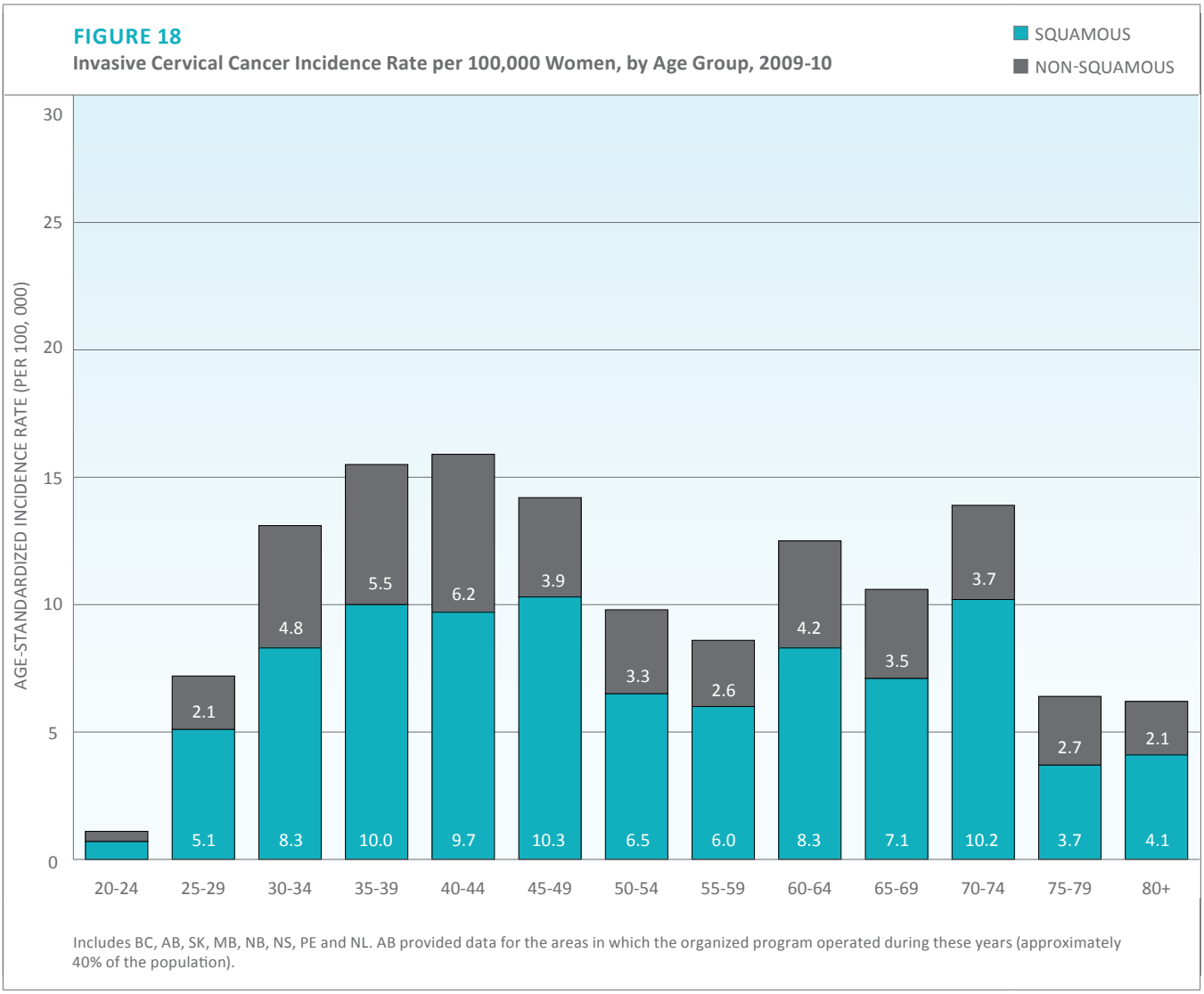


AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). Data from PE was supressed because of small numbers.

Figure 18 shows the invasive cervical cancer incidence per 100,000 women by age group and histology (squamous cell versus non–squamous cell) from 2009-10. The incidence rate peaked in the 40 to 44 age group (9.7 per 100,000 for squamous cell carcinoma and 6.2 per 100,000 for non–squamous cell carcinoma) and then again in the 70 to 74 age group for squamous cell carcinoma (10.2 per 100,000 for squamous cell carcinoma and 3.7 per 100,000 for non–squamous cell carcinoma). The incidence rate for women aged 20 to 24 was less than 1 per 100,000 for both squamous cell carcinoma and non–squamous cell carcinoma.

FIGURE 18

Invasive Cervical Cancer Incidence Rate per 100,000 Women, by Age Group, 2009-10



Includes BC, AB, SK, MB, NB, NS, PE and NL. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).

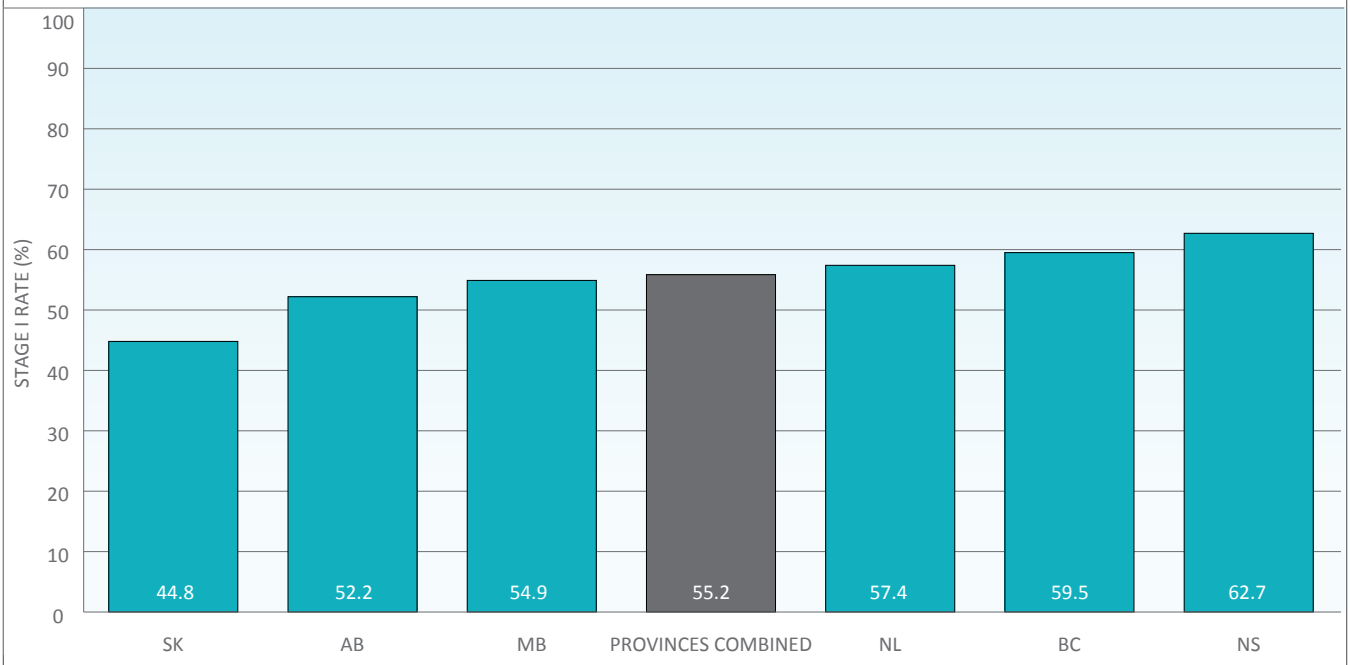
CANCERS DIAGNOSED AT STAGE 1

Cancers diagnosed at Stage 1 is the percentage of invasive cervical cancers that were diagnosed at Stage 1 using the International Federation of Gynaecology and Obstetrics (FIGO) stage classification system. In a Stage 1 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 19 shows the percentage of all invasive cervical cancers detected at Stage 1, by province and age group, for 2009-10. The percentage of Stage 1 cancers for women aged 20 to 69 was 55.2%, ranging from 44.8% to 62.7%.

FIGURE 19

Percentage of Invasive Cervical Cancers Detected at Stage 1, by Province, Ages 20 to 69, 2009-10



AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). Data from PE was suppressed because of small numbers. Invasive cervical cancer includes squamous cell cancers, adenocarcinomas, adenosquamous carcinomas and unclassified cervical cancers (i.e., all ICD-O C53).

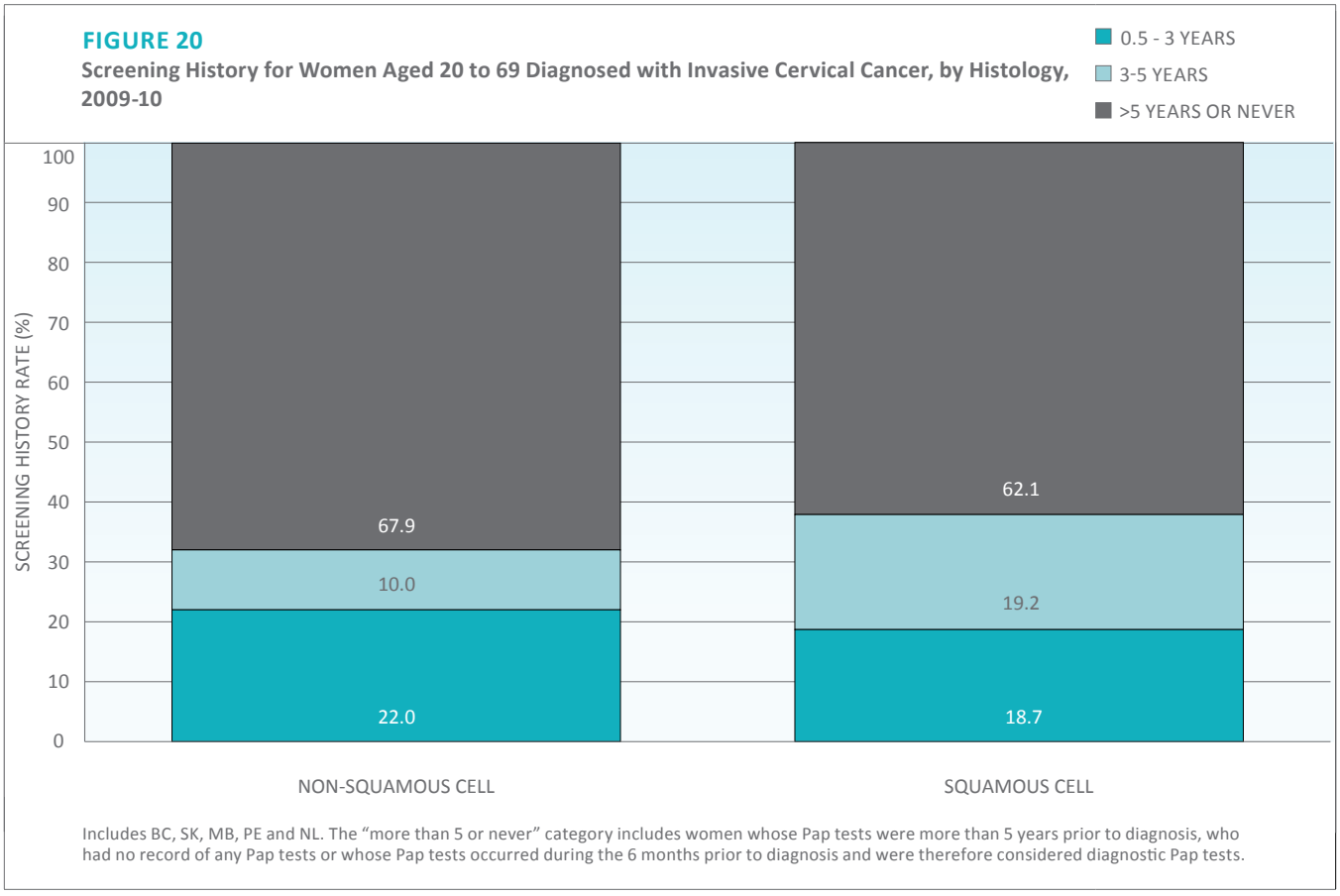
SCREENING HISTORY IN CASES OF INVASIVE CANCER

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 (i.e., within the guidelines), three to five years, or more than five years before the date of cancer diagnosis. "More than five years" includes women who had no record of a Pap test or whose only Pap test was taken during the six months before a cancer diagnosis, because this Pap test was most likely performed for diagnostic rather than screening purposes.

Figure 20 shows the percentage of women aged 20 to 69 diagnosed with invasive cervical cancer since their last screening Pap test, by histology, for 2009-10. For non–squamous cell carcinoma, 22.0% of women had a Pap test six months to three years before diagnosis, 10.0% had a test three to five years before diagnosis and 67.9% had a test more than five years before diagnosis or had never had a Pap test. For squamous cell carcinoma, 18.7% of women had a Pap test six months to three years before diagnosis, 19.2% had a test three to five years before diagnosis and 62.1% had a test more than five years before diagnosis or had never had a Pap test. Similar to the results shown in the previous report, over half of women had either not had a Pap test for more than five years prior to their cancer diagnosis or had never had a Pap test. These cases of cancer may have been prevented with regular screening.

FIGURE 20

Screening History for Women Aged 20 to 69 Diagnosed with Invasive Cervical Cancer, by Histology, 2009-10



Includes BC, SK, MB, PE and NL. The "more than 5 or never" category includes women whose Pap tests were more than 5 years prior to diagnosis, who had no record of any Pap tests or whose Pap tests occurred during the 6 months prior to diagnosis and were therefore considered diagnostic Pap tests.

HPV TESTING

Although screening using the Pap test has resulted in significant reductions in cervical cancer incidence and mortality, the sensitivity of the Pap test is moderate at approximately 55%. This limitation and the understanding of the role of HPV in the etiology of cervical cancer have led to the evaluation of HPV DNA testing as an alternative method for cervical screening.

HPV testing detects HPV DNA on the cervix. HPV testing can be used for primary screening alone, in combination with cytology, or for the triage of women with equivocal cytology results (i.e., ASC-US). Several large randomized controlled trials have found that HPV testing has a higher sensitivity for the detection of pre-cancerous lesions (CIN 2 and 3) than screening with the Pap test.[12] The specificity is lower, however, resulting in an increase in the number of women referred for colposcopy, particularly for women younger than 30 or 35.[13] It will therefore be important to monitor the impact of HPV testing on screening outcomes as provinces and territories incorporate the test into their screening guidelines.

HPV testing is currently used for the triage of low-grade lesions of undetermined significance (ASC-US) for women over 30 years of age in the Northwest Territories and Newfoundland and Labrador. HPV testing is used for follow-up after treatment in the Northwest Territories, British Columbia, and Alberta. Pilot studies and further research are ongoing in British Columbia, Saskatchewan, Manitoba, Québec, and Nova Scotia.

HPV IMMUNIZATION

Each province and territory in Canada currently co-ordinates and provides a school-based, publicly funded HPV vaccination program using the quadrivalent vaccine Gardasil for girls aged nine to 14 years, with some catch-up vaccination provided up to age 18.[14] Gardasil protects against the two most common oncogenic HPV types (16 and 18), which cause approximately 70% of cervical cancers (as well as vaginal and vulvar cancer) and two common low-risk types (6 and 11), which cause approximately 90% of genital warts.[15] Table 7 provides information on the target population and percentage of girls who received at least a first HPV immunization dose, by province and territory.[16]

TABLE 7
Human Papillomavirus Immunization Target Population and Percentage of Girls Who Received a First HPV Immunization Dose, by Province and Territory, as of Jan. 2013

PROVINCE OR TERRITORY	TARGET POPULATION	PERCENTAGE WHO RECEIVED FIRST DOSE
BC	Grades 6 and 9	Grade 6, 68.7% (2012) Grade 9, 51.7% (2011)
AB	Grade 5	Grade 5, 60.2% (3 doses, 2010–11) Grade 9, 60.1% (3 doses, 2010–11)
SK	Grade 6	73% (2009)
MB	Grade 6	65% (2009); 72% (2012)
ON	Grade 8	59% (3 doses)
QC	9–10 years (grade 4) 14–15 years (grade 9)	Grade 4, 84% (2009) Grade 9, 91% (2009)
NB	Grade 7	Grade 7, 78.5% (1 dose) and 71.9% (3 doses, 2008–09) Grade 8, 80.3% (1 dose) and 73.8% (3 doses, 2008–09)
NS	Grade 7	72% (3 doses, 2009)
PE	Grade 6	80% (estimate, 2009)
NL	Grade 6, catch-up in grade 9	Grade 6, 92% (1 dose, 2009) Grade 9, 84% (1 dose, 2009)
NU	Grade 6 or ≥ 9 years	NA
NT	Grade 4, 5 or 6	71% (estimate for 2009)
YT	Grade 6, catch-up in grades 7 and 8	NA

As more cohorts of young women are immunized, the pattern of cervical cancer screening will be affected. HPV immunization may also change screening recommendations – the interval between screens may be lengthened or the age of screening initiation may be increased. The impact of the vaccine on screening must therefore be monitored. Doing so will require the integration of information on HPV immunization, cervical cancer screening, cancer incidence and sexually transmitted infection surveillance.[14] Four provincial screening programs are in the process of adding HPV immunization data from provincial immunization databases, self-reported data, and medical records to the screening registries.[16]

Discussion

This report presents outcomes for 12 cervical cancer screening program performance indicators. The results provide updated 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. Data availability has increased significantly since the 2006–08 report, most importantly for the indicators that use colposcopy or histology data – time to colposcopy, histological investigation, and cytology-histology correlation.

Across Canada, cervical cancer screening participation and retention is high. Nevertheless, targeted multi-component initiatives to encourage screening may be required for certain groups of women. The literature suggests that participation and retention are influenced by personal factors such as income, education, ethnicity and immigration status; system factors such as Pap test accessibility; and provider factors such as the recommendation of a health-care provider and the availability of invitation and recall systems.[17-23]

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.

The number of provinces able to report time to colposcopy, histological investigation, and cytology-histology agreement has increased significantly from the 2006–08 report. Approximately half of women with a high-grade abnormal Pap test had a colposcopy within 12 weeks. The Society of Obstetricians and Gynaecologists of Canada recommends that all women with an ASC-H or AGC Pap test result should be seen in a colposcopy clinic within six weeks of referral and that women with an HSIL Pap test result should be seen within four weeks of referral.[24] Therefore, improving the time to colposcopy requires further attention in most provinces.

The pre-cancer incidence rate, invasive cervical cancer incidence, and screening history for women diagnosed with invasive cervical cancer provide important feedback on screening outcomes. Six provinces provided information on the rate of pre-cancerous lesions, up from three in 2006–09. Young women (aged 20 to 29) have much higher rates of CIN 2 or 3 than all other age groups but have very low rates of invasive cervical cancer. This may reflect over-screening in younger women. The number of women diagnosed with a non–squamous cell carcinoma is half the rate of squamous cell carcinoma diagnoses.

Finally, over half of women diagnosed with cervical had either not had a Pap test in the previous three 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

Cervical cancer incidence and mortality can be greatly reduced by screening with the Pap test and, more recently, HPV testing and HPV vaccination. Additionally, screening guidelines have changed rapidly over the past few years as knowledge of HPV and cervical cancer etiology has evolved. In the next few years, more Pap tests will use LBC, the first cohort of vaccinated women will become eligible for screening, and primary and triage-based HPV testing will become more common. Screening participation will remain a challenge particularly among older women, new immigrants, and visible minorities, who are disproportionately affected by cervical cancer.

The challenge is to provide high-quality evidence of the effectiveness of screening with the Pap test and emerging screening modalities to ensure that cervical cancer prevention and screening is safe, effective, timely, efficient, accessible, and equitable.[25] The process of monitoring program performance will contribute to an improved understanding of the benefits of screening and the factors associated with optimum use, including underuse, overuse, misuse, and overall quality. As Canadian cervical screening programs become more organized and are able to provide better data, the evaluation of these indicators is a key part of addressing challenges in cervical cancer screening and ensuring that screening guidelines evolve as required.

The next step is to develop national targets for appropriate indicators. In November 2013, the Pan-Canadian Cervical Cancer Screening Network and the Partnership brought together health-care providers, program administrators, scientists, and other experts to discuss the current evidence for setting targets for program performance measures. The next report, due to be published in 2015, will include targets for performance measures, which will provide additional information about cervical cancer screening quality for Canadian women.

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Appendix A

WORKING GROUP AND DATA GROUP MEMBERSHIP, 2012–13

The working group comprised the following members:

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Appendix B

CERVICAL CANCER SCREENING PROGRAMS IN CANADA

SNAPSHOT OF PROGRAM ELEMENTS (AS OF JULY 2013)	YT	NT	NU	BC	AB	SK
TYPE OF PROGRAM	Spontaneous	Spontaneous	Spontaneous	Partially organized	Partially organized	Partially organized (2009)
PROGRAM LAUNCHED/ ANNOUNCED				1960	2003	2003
START SCREENING	Age 21 or 3 years after first sexual contact, whichever occurs first	Age 21 or 3 years after first sexual contact	Age 21 or 3 years after first sexual contact	Age 21 or 3 years after first sexual contact, whichever occurs first	Age 21 or 3 years after becoming sexually active, whichever occurs later	Age 21 or 3 years after becoming sexually active, whichever occurs later
STOP SCREENING	Age 69 with 3 consecutive negative tests in previous 10 years or 3 annual negative tests (for women inadequately screened)	Age 69 with 3 negative tests in previous 10 years	Age 70 with 3 negative tests in previous 10 years	Age 69 with 3 consecutive negative tests in previous 10 years or 3 annual negative tests (for women inadequately screened)	Age 69 with 3 consecutive negative tests in previous 10 years or 3 annual negative tests (for women with no screening history)	Age 69 with 3 consecutive negative tests in previous 10 years or 3 annual negative tests (for women with no screening history)
SCREENING INTERVAL	Every 2 years after 3 consecutive annual negative tests	Every 2 years after 3 consecutive annual negative tests	Every 2 years after 3 consecutive annual negative tests	Every 2 years after 3 consecutive annual negative tests	Three negative tests at least 12 months apart within 5 years, then every 3 years	Every 2 years until 3 consecutive negative tests, then every 3 years
POPULATION-BASED RECRUITMENT	No	No	No	No	Yes, for part of province	Yes
RESULT LETTERS TO WOMEN	No	No	No	No; results to provider	Yes	Yes
REMINDERS FOR FOLLOW-UP AFTER ABNORMAL PAP TEST	NA	Yes, care providers	NA	Yes, care providers	Yes, care providers and woman	Yes, care providers
TYPE OF CYTOLOGY	Conventional	Liquid-based	Liquid-based	Conventional	Liquid-based	Conventional
HPV TESTING FOR ASC-US TRIAGE OR FOR PRIMARY SCREENING	Neither	ASC-US triage	ASC-US triage for women aged > 30	ASC-US triage and follow-up for treatment	Follow-up for treatment	Neither

Appendix B (continued)

CERVICAL CANCER SCREENING PROGRAMS IN CANADA

	MB	ON	QC	NB	NS	PE	NL
	Organized (2010)	Partially organized	Spontaneous	Partially organized	Partially organized	Partially organized	Partially organized
	2000	2000		2013/14	1991	2001	2003
	Age 21 for women who have ever been sexually active	Age 21	Age 21	Age 21 or 3 years after becoming sexually active, whichever occurs later	Age 21 or 3 years after first sexual contact, whichever occurs first	Age 18 or within 3 years of becoming sexually active	Age 20
	Age 70 with 3 negative tests in previous 10 years	Age 69 with 3 negative tests in previous 10 years	Age 65 with 3 negative tests in previous 10 years	Age 69 with history of adequate negative tests in previous 10 years or 3 annual negative tests for women with little or no screening history	Age 75 adequate negative screening history in previous 10 years (i.e., 3 or more negative tests)	Age 75	Age 70 with history of adequate negative tests in previous 10 years or 3 annual negative tests for women with little or no screening history
	Every 3 years	Every 3 years	Every 2–3 years	Every 2–3 years after 3 consecutive annual negative tests	Every 2 years after 3 consecutive annual negative tests	Every 2 years after 3 consecutive annual negative tests	Every 3 years after 3 consecutive annual negative tests
	Yes	Yes	No	No	No	No	No
	By request from women only	Yes	No	No	Pap screen history by request	No	No
	Yes, care providers and woman	Yes (as of Jan. 2014)	No	Not at this time	Yes, care providers	No	Yes, care providers
	Conventional	Both conventional and liquid-based	Conventional	Both conventional and liquid-based	Conventional	Conventional	Liquid-based
	Neither	ASC-US triage (not publicly funded)	Neither	Neither	Neither	Neither	ASC-US triage for women aged > 30

Appendix B (continued)

CERVICAL CANCER SCREENING PROGRAMS IN CANADA

SNAPSHOT OF PROGRAM ELEMENTS (AS OF JULY 2013)	YT	NT	NU	BC	AB	SK
ADMINISTRATION						
TRACKING OF POSITIVE SCREENS AND APPROPRIATE FOLLOW-UP				✓	✓	✓
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
SCREENING GUIDELINES				✓		
TRAINING MANUALS				✓		

Appendix B (continued)

CERVICAL CANCER SCREENING PROGRAMS IN CANADA

	MB	ON	QC	NB	NS	PE	NL
	ADMINISTRATION						
	✓	Underway			✓	✓	
	✓	✓ (to women, not providers)			✓	✓	✓
	INFORMATION SYSTEMS						
	✓						✓
	✓	✓					
	✓						
	✓						
	QUALITY ASSURANCE						
	✓ Revising	✓ Updating 2011	Proposed plan to implement 2011	Approved (adapted from AB & ON)	✓	✓ Revised 2010	✓ Updating
	✓	✓		✓	✓	✓	
	✓	✓	Developing nursing screening tools		✓		✓

Appendix C

DATA DEFINITIONS

INDICATOR (FOR WOMEN AGED 20 TO 69)	CALCULATION	NOTES
1. PARTICIPATION RATE. Percentage of eligible women in the target population with at least 1 Pap test in a 3-year period	Numerator: Number of women with at least 1 Pap test in a 3-year period For 2 5-year and 5 10-year age groups (20–24, 25–29, 30–39, 40–49, 50–59, 60–69)	• Use first Pap test that occurs in the 3-year period • Use date Pap test was performed • Time periods: Jan. 1, 2007–Dec. 31, 2009; Jan. 1, 2008–Dec. 31, 2010; Jan. 1 2009–Dec. 31, 2011 • Do not exclude women who have had cervical cancer diagnosis • Exclude women who have had hysterectomy if possible; note methodology when submitting data (BC, ON; now available for MB) • Calculate age at Pap test date
	Denominator: Number of women in target population at year 2	• Define population using Statistics Canada population estimates at year 2 of each time period) • AB will send denominator because of incomplete coverage • Do not exclude women who have had cervical cancer diagnosis • Exclude women who have had hysterectomy if possible • Calculate 5- and 10-year age-specific rates • Calculate age-standardized rate for 20–69 age group standardized to 1991 Canadian population
2. RETENTION RATE. Percentage of eligible women re-screened within 3 years after negative Pap test in a 12-month time frame	Numerator: Number of women who have subsequent Pap test within 3 years of index test with negative result By 10-year age groups (20–29, 30–39, 40–49, 50–59, 60–69)	• Index Pap test is last negative Pap test in 12-month index period • Use date Pap test was performed* • Time periods: Include women who had negative Pap test during Jan. 1, 2007–Dec. 31, 2007, and follow-up for 3 years from date of Pap test; women who had negative Pap test during Jan. 1, 2008–Dec. 31, 2008, and follow-up for 3 years from date of Pap test • Calculate woman's age at date of index Pap test with negative result
	Denominator: Number of women with negative Pap test in a 12-month period	• 12-month period is defined as Jan. 1, 2007–Dec. 31, 2007, for first time period; Jan. 1, 2008–Dec. 31, 2008, for second time period

*If the date the Pap test was performed is not available, use the date the test was processed by the lab

Appendix C (continued)

DATA DEFINITIONS

INDICATOR (FOR WOMEN AGED 20 TO 69)	CALCULATION	NOTES
3. SPECIMEN ADEQUACY. Percentage of test results reported as unsatisfactory in a 12-month period	Numerator: Number of Pap tests with unsatisfactory results By 10-year age groups (20–29, 30–39, 40–49, 50–59, 60–69)	• Time periods: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010; Jan. 1, 2011–Dec. 31, 2011 • Count each unsatisfactory Pap test because this indicator is test-based, not woman-based • Calculate age at date of unsatisfactory Pap test. If more than 1 Pap test was unsatisfactory, calculate age at time of each test. Unsatisfactory should not include rejected or unlabelled slides • Use date Pap test was performed • Identify whether or not cytology is conventional or LBC • If both conventional cytology and LBC are used, separate results by cytology type • If type of cytology is unknown, complete unknown cytology categor
	Denominator: Total number of Pap tests	Total number of Pap tests for each year – some women will have more than 1 Pap test in each year
4. SCREENING TEST RESULTS. Percentage of women by their most severe Pap test result in a 12-month period	Numerator: Number of women with negative, ASC-US, LSIL, AGC, ASC-H or HSIL or more severe Pap test results By 10-year age groups (20–29, 30–39, 40–49, 50–59, 60–69)	• Count number of women • Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010; Jan. 1, 2011–Dec. 31 2011 • Use date of index Pap test with most severe result in that year • Define severity as negative < ASC-US < LSIL < AGC < ASC-H < HSIL or more severe • Use cytology diagnostic category map • If there are 2 Pap tests of same severity, choose the first • Calculate age using date of Pap test that had most severe result • For SK, Pap test result categories are abnormal low and abnormal high
	Denominator: Total number of women with satisfactory Pap test results	• Count most severe satisfactory Pap test
5. CYTOLOGY TURNAROUND TIME. Median number of calendar days from date specimen is taken to date the finished report is issued over a 12-month period	Numerator: Median number of calendar days from date Pap test is taken to date the Pap test report is finalized For women aged 20–69 (not collected by 10-year age groups)	• Finalized is date Pap test is processed by lab (date on lab report) • Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. A1, 2010–Dec. 31, 2010; Jan. 1, 2011–Dec. 31 2011 • Use number of days between each Pap test (performed) in calendar year and subsequent Pap test lab report date • Include unsatisfactory Pap tests
	Denominator: NA	

Appendix C (continued)

DATA DEFINITIONS

INDICATOR (FOR WOMEN AGED 20 TO 69)	CALCULATION	NOTES

6. TIME TO COLPOSCOPY. Percentage of women with high-grade Pap test results (AGC, ASC-H, HSIL+ and ASC-H, or HSIL+) who had follow-up colposcopy examination within 3, 6, 9 and 12 months subsequent to index Pap test	Numerator: a1) Number of women who had colposcopy within 3 months of Pap test with AGC, ASC-H or HSIL+ result
	
	a2) Number of women who had colposcopy within 6 months of Pap test with AGC, ASC-H or HSIL+ result
	
	a3) Number of women who had colposcopy within 9 months of Pap test with AGC, ASC-H or HSIL+ result
	
	a4) Number of women who had colposcopy within 12 months of Pap test with AGC, ASC-H or HSIL+ result
	
	b1) Number of women who had colposcopy within 3 months of Pap test with ASC-H or HSIL+ result
	
	b2) Number of women who had colposcopy within 6 months of Pap test with ASC-H or HSIL+ result
	
	b3) Number of women who had colposcopy within 9 months of Pap test with ASC-H or HSIL+ result
	
	b4) Number of women who had colposcopy within 12 months of Pap test with ASC-H or HSIL+ result
	
	By 10-year age groups (20–29, 30–39, 40–49, 50–59, 60–69)
		• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010
		• Use date of screening Pap test with AGC, ASC-H or HSIL+ result. Pap test should be performed in calendar year of interest but colposcopy can be performed in next calendar year
		• Colposcopy date is date the first colposcopy is performed after date of screening Pap test
		• Exclude all women who had colposcopy performed within 7 days of the date of Pap test because these are most likely based on clinical findings
		• Calculate woman's age as of date Pap test with the AGC, ASC-H or HSIL+ result was performed
		  ◦ 0–3 months (1–90 days)
		  ◦ 3–6 months (91–182 days)
		  ◦ 6–9 months (183–274 days)
		  ◦ 9–12 months (275–365 days)
		• If a woman has more than 1 Pap test with an AGC, ASC-H or HSIL+ result in the time frame, use most severe Pap test
		• If a woman has more than 1 of her most severe Pap tests (i.e., 2 AGC tests, 2 ASC-H tests or 2 HSIL tests), use the first Pap test in the time frame

	Denominator: a1-4) Total number of women with AGC, ASC-H or HSIL+ reported in a 12-month period b1-4) Total number of women with ASC-H or HSIL+ reported in a 12-month period	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010 • Beginning with women who had high-grade Pap test from numerator in indicator 4, we will have women who had high-grade Pap test who had colposcopy within 7 days of Pap test, women who had high-grade Pap test who had colposcopy more than 7 days after Pap test and women who had high-grade Pap test who did not have colposcopy • For this denominator, we need to exclude women who had high-grade Pap test in the 12-month period who had colposcopy performed within 7 days of date of the high-grade Pap test result • If we do not exclude these women from denominator, it will appear that they were not followed up and rate will be artificially low • This means women excluded from numerator are also excluded from denominator

Appendix C (continued)

DATA DEFINITIONS

INDICATOR (FOR WOMEN AGED 20 TO 69)	CALCULATION	NOTES
7. HISTOLOGICAL INVESTIGATION. Percentage of women with positive screening test result of ASC-H or HSIL+ who had 1) histological investigation in a 12-month period and 2) had colposcopy within 12 months of Pap test with ASC-H or HSIL+ result	Numerator: Number of women with histologic investigation within 12 months of ASC-H or HSIL+ cytological finding By 10-year age groups (20–29, 30–39, 40–49, 50–59, 60–69)	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010 • Use date of Pap test with ASC-H or HSIL+ finding • Pap test should be performed in calendar year of interest but biopsy can be performed in next calendar year • Calculate woman's age at date of Pap test with ASC-H or / HSIL+ result • Histological investigation includes any cervical pathology report (including cervical, vaginal and endocervical) • Include women who had biopsy without histological result • If biopsy is performed within 7 days of Pap test, exclude
	Denominator: a) Number of women with cytological finding of ASC-H or HSIL+ in a 12-month period b) Number of women who had colposcopy within 12 months of Pap test with ASC-H or HSIL+ result	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010 • If biopsy is performed within 7 days of Pap test, exclude. Rationale is same as for indicator 6
8. CYTOLOGY-HISTOLOGY AGREEMENT. Proportion of positive Pap tests with histological work-up found to have pre-cancerous lesion or invasive cancer in a 12-month period	Numerator: a) Number of Pap tests with ASC-H results with histological confirmation of CIN 3+ within 12 months of ASC-H Pap test b) Number of Pap tests with ASC-H or HSIL+ result with histological confirmation of CIN 3+ within 12 months of ASC-H or HSIL+ Pap test c) Number of Pap tests with ASC-H only result with histological confirmation of CIN 2+ (CIN 2 or greater) within 12 months of ASC-H Pap test d) Number of Pap tests with ASC-H or HSIL+ result with histological confirmation of CIN 2+ (CIN 2 or greater) within 12 months of ASC-H or HSIL+ Pap test	• Pap test should be performed in calendar year of interest but biopsy can be performed in next calendar year • Use cytology diagnostic category map (attached) • CIN 2 = moderate dysplasia • CIN 3+ = severe dysplasia, carcinoma in situ and invasive cancer • If a woman has more than 1 histological result in the time frame, use the more severe histology outcome
	Denominator: a) and c) Number of Pap tests with ASC-H result with histological work-up within 12 months of ASC-H Pap test b) and d) Number of Pap tests with ASC-H or HSIL+ result that have histological work-up within 12 months of ASC-H or HSIL+ Pap test	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010 • Histology result includes any cervical, vaginal or endocervical histology result
9. PRE-CANCER INCIDENCE RATE. Number of pre-cancerous lesions (squamous) detected per 1,000 women who had Pap test in previous 12 months	Numerator: Number of women with histology CIN 2 or CIN 3 By 10-year age groups (20–29, 30–39, 40–49, 50–59, 60–69)	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010 • Use most severe biopsy that was performed • Year is defined by Pap test date • Use age at date of Pap test • Histology must occur within 12 months of Pap test • CIN 2/3 includes moderate and severe dysplasia and carcinoma in situ (excludes adenocarcinoma in situ)
	Denominator: Number of women who had at least one Pap test	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010 • Use date of Pap test; count each woman once • If a woman had more than one Pap test, use the first Pap test

Appendix C (continued)

DATA DEFINITIONS

INDICATOR (FOR WOMEN AGED 20 TO 69)	CALCULATION	NOTES
10. CANCER INCIDENCE. Age-standardized incidence rate per 100,000 women of invasive cervical cancer diagnosed in a year	Numerator: a) Number of new cases of invasive cervical cancer – squamous cell carcinoma only b) Number of new cases of invasive cervical cancer – non–squamous cell carcinomas By 5-year age groups (20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, 75–79, 80+)	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1 2010–Dec. 31, 2010 • Invasive cervical cancers, i.e., all cases with ICD-O C53 topography code • Separate squamous cell carcinoma from all other morphology types (adenocarcinoma, mixed, unclassified, unknown) • For squamous cell carcinomas, include all invasive histology codes within histology range of squamous cell neoplasms (8050–8084). Because some of these histologies are unlikely to occur in the cervix, ICD-O topography code of C53 must also be specified • Entire squamous cell neoplasia list: o 8050/3 papillary carcinoma, NOS o 8051/3 verrucous carcinoma, NOS o 8052/3 papillary squamous cell carcinoma o 8070/3 SCC, NOS o 8071/3 keratinizing o 8072/3 non-keratinizing o 8073/3 SCC, small cell, non-keratinizing o 8074/3 SCC, spindle cell o 8075/3 SCC, adenoid o 8076/3 SCC, microinvasive o 8078/3 SCC with horn formation o 8082/3 lymphoepithelial carcinoma o 8083/3 basaloid SCC o 8084/3 SCC, clear-cell type • Define age as woman's age at diagnosis (pathology/biopsy)
	Denominator: a) and b) Provincial population for each age group	• Age-standardized incidence rates should be calculated using age distribution of 1991 Canadian population • Use Statistics Canada population data for consistency across provinces and territories • Define population using Statistics Canada population estimates at mid-year
11. PERCENTAGE OF CANCERS DETECTED AT STAGE 1. Percentage of invasive carcinoma of the cervix diagnosed at FIGO Stage 1 in 12-month period	Numerator: Number of invasive cervical cancers diagnosed at Stage 1 By 10-year age groups (20–29, 30–39, 40–49, 50–59, 60–69) Data will be rolled up to provide national percentage by age group	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010 • Map TNM to FIGO (T1=I, T1A=IA, T1a1=IA1, T1a2=IA2, T1b=IB, T1b1=IB1, T1b2=IB2) before submission • Define age as woman's age at diagnosis (pathology/biopsy) • Invasive cervical cancers include squamous cell cancers, adenocarcinoma, adenosquamous and not classified; i.e., all cases with ICD-O C53 topography code • Note: stage data from Canadian Cancer Registry may be available for this indicator for third data submission
	Denominator: Number of invasive cervical cancer	• Time period: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010

Appendix C (continued)

DATA DEFINITIONS

INDICATOR (FOR WOMEN AGED 20 TO 69)	CALCULATION	NOTES
12. SCREENING HISTORY IN CASES OF INVASIVE CANCER. Percentage of women with invasive cancer of the cervix by time since previous Pap test in 12-month period	Numerator: a1) Number of women diagnosed with invasive cervical cancer (squamous cell carcinoma) within 0.5–3 years since previous Pap test a2) Number of women diagnosed with invasive cervical cancer (squamous cell carcinoma) within > 3–5 years since previous Pap test a3) Number of women diagnosed with invasive cervical cancer (squamous cell carcinoma) > 5 years since previous Pap test (including women who have never had Pap test) b1) Number of women diagnosed with invasive cervical cancer (non–squamous cell carcinomas) within 0.5–3 years since previous Pap test b2) Number of women diagnosed with invasive cervical cancer (non–squamous cell carcinomas) within > 3–5 years since previous Pap test b3) Number of women diagnosed with invasive cervical cancer (non–squamous cell carcinomas) > 5 years since previous Pap test (including women who have never had Pap test) For age 20–69 Data will be rolled up to provide nationally percentage for each year	• Use date of Pap test, not date registered or analyzed • Calculate age at date of diagnosis of invasive cervical cancer • If a woman has multiple Pap tests prior to cancer diagnosis, use most recent test • Time frame: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010 • Use the following categories: o 0–0.5 years = 0–182 days o 0.5–3 years = 183–1,095 days o > 3–5 years = 1,096–1,825 days o > 5 years = > 1,826 days o Never = no Pap test recorded o Insufficient historical data • If a woman had Pap test within 0–0.5 years and within 0.5–3 years, or > 3–5 years or > 5 years, use the 0.5–3 or > 3–5 or > 5 test, whichever comes first, instead of the 0–0.5 year test because we want screening history and we are assuming Pap test in 0–0.5 year category is for diagnostic purposes • Invasive cervical cancers, i.e., all cases with ICD-O C53 topography code • Separate squamous cell carcinoma from all other morphology types (adenocarcinoma, mixed, unclassified, unknown) • See indictor 10 – cancer incidence – for definition of squamous cell carcinoma of the cervix
	Denominator: a1-3 Total number of women diagnosed with invasive cervical cancer (squamous cell carcinoma) b1-3 Total number of women diagnosed with invasive cervical cancer (non–squamous cell carcinomas)	• Time frame: Jan. 1, 2009–Dec. 31, 2009; Jan. 1, 2010–Dec. 31, 2010
13. HPV TESTING	Description of HPV testing across Canada, including what tests are used, how tests are used and information on HPV genotyping, will be included at this time	
HPV VACCINATION	Information on HPV vaccination rates may be available, or description of HPV vaccination will be included	

LBC = liquid-based cytology; ASC-US = atypical squamous cells of undetermined significance; LSIL = low-grade squamous intraepithelial lesions; AGC = atypical glandular cells; ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions or more severe; NA = not applicable; CIN = cervical intraepithelial neoplasia; ICD-O = International Classification of Diseases for Oncology; NOS = not otherwise specified; SCC = squamous cell carcinoma; TNM = tumour, node, metastases; FIGO = International Federation of Gynecology and Obstetrics; HPV = human papillomavirus

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
HSIL+	High-grade squamous intraepithelial lesion, carcinoma in situ and carcinoma invasive

Saskatchewan Cytology Codes

CODE	DESCRIPTION
ADC	Abnormal glandular cells representing adenocarcinoma are present.
AGC	Atypical glandular cells not otherwise specified are present.
AGCN	Atypical glandular cells not otherwise specified, favour neoplastic, are present.
AGEC	Atypical glandular cells of endocervical origin are present.
AGECN	Atypical glandular cells of endocervical origin, favour neoplastic, are present.
AGEM	Atypical glandular cells of endometrial origin are present.
AIS	Abnormal glandular cells representing endocervical adenocarcinoma in situ 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 are present.
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 are present – cannot exclude a high-grade squamous intraepithelial lesion.
HSIL	A high-grade squamous intraepithelial lesion is present.
LSIL	A low-grade squamous intraepithelial lesion 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

CLASSIFICATION OF CERVICAL INTRAEPITHELIAL NEOPLASIA

Cervical intraepithelial neoplasia (CIN) is the potentially pre-malignant transformation and abnormal growth (dysplasia) of squamous cells on the surface of the cervix.

HISTOLOGY	DESCRIPTION
CIN 1	Mild dysplasia or abnormal cell growth confined to the basal one-third of the epithelium.
CIN 2	Moderate dysplasia confined to the basal two-thirds of the epithelium.
CIN 3	Severe dysplasia that includes more than two-thirds of the epithelium and may involve the full thickness of the epithelium. May sometimes be referred to as carcinoma in situ.

Appendix F

SUPPLEMENTARY TABLES

Participation: Percentage of Eligible Women in the Target Population with at Least One Pap Test in a Three-year Period, Age Specific, Hysterectomy Corrected

		2006–08			2007–09			2008–10			2009–11		
PROVINCE	AGE GROUP	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT
PROVINCES COMBINED	**20-69**	**936,585**	**1,278,778**	**73.2**	**1,169,675**	**1,651,010**	**70.8**	**1,187,278**	**1,687,188**	**70.4**	**1,194,291**	**1,721,023**	**69.4**
	20-24	—	—	—	125,694	187,343	**67.1**	128,360	192,547	**66.7**	127,997	198,821	**64.4**
	25-29	—	—	—	138,517	188,712	**73.4**	144,124	196,186	**73.5**	146,777	201,938	**72.7**
	20-29	201,687	287,695	**70.1**	264,211	376,055	**70.3**	272,484	388,733	**70.1**	274,774	400,759	**68.6**
	30-39	225,165	292,914	**76.9**	277,310	372,244	**74.5**	278,202	376,135	**74.0**	276,375	380,045	**72.7**
	40-49	236,156	301,868	**78.2**	290,606	384,003	**75.7**	287,068	383,966	**74.8**	282,501	382,748	**73.8**
	50-59	180,462	254,134	**71.0**	223,271	328,616	**67.9**	228,583	336,729	**67.9**	232,769	344,526	**67.6**
	60-69	93,115	142,167	**65.5**	114,277	190,092	**60.1**	120,941	201,625	**60.0**	127,872	212,946	**60.0**
BC	**20-69**	**936,585**	**1,278,778**	**73.2**	**918,997**	**1,304,197**	**70.5**	**934,573**	**1,331,247**	**70.2**	**940,023**	**1,356,113**	**69.3**
	20-24	—	—	—	95,012	146,908	**64.7**	97,773	150,944	**64.8**	97,706	156,438	**62.5**
	25-29	—	—	—	107,525	149,444	**72.0**	112,819	155,712	**72.5**	115,076	160,111	**71.9**
	20-29	201,687	287,695	**70.1**	202,537	296,352	**68.3**	210,592	306,656	**68.7**	212,782	316,549	**67.2**
	30-39	225,165	292,914	**76.9**	219,877	295,577	**74.4**	220,539	297,976	**74.0**	218,429	300,217	**72.8**
	40-49	236,156	301,868	**78.2**	231,356	301,384	**76.8**	228,460	301,237	**75.8**	224,627	299,974	**74.9**
	50-59	180,462	254,134	**71.0**	176,804	260,698	**67.8**	181,103	267,048	**67.8**	184,494	272,862	**67.6**
	60-69	93,115	142,167	**65.5**	88,423	150,186	**58.9**	93,879	158,330	**59.3**	99,691	166,512	**59.9**
MB	**20-69**	—	—	—	**250,678**	**346,813**	**72.3**	**252,705**	**355,941**	**71.0**	**254,268**	**364,910**	**69.7**
	20-24	—	—	—	30,682	40,435	**75.9**	30,587	41,603	**73.5**	30,291	42,383	**71.5**
	25-29	—	—	—	30,992	39,268	**78.9**	31,305	40,474	**77.3**	31,701	41,827	**75.8**
	20-29	—	—	—	61,674	79,703	**77.4**	61,892	82,077	**75.4**	61,992	84,210	**73.6**
	30-39	—	—	—	57,433	76,667	**74.9**	57,663	78,159	**73.8**	57,946	79,828	**72.6**
	40-49	—	—	—	59,250	82,619	**71.7**	58,608	82,729	**70.8**	57,874	82,774	**69.9**
	50-59	—	—	—	46,467	67,918	**68.4**	47,480	69,681	**68.1**	48,275	71,664	**67.4**
	60-69	—	—	—	25,854	39,906	**64.8**	27,062	43,295	**62.5**	28,181	46,434	**60.7**

BC is hysterectomy-corrected for age groups 40–49, 50–59 and 60–69. MB is hysterectomy-corrected in 2007–09, 2008–10 and 2009–11.

Appendix F (continued)

SUPPLEMENTARY TABLES

Participation: Percentage of Eligible Women Aged 20 to 69 in the Target Population with at Least One Pap Test in a Three-year Period, Age-standardized, Hysterectomy Corrected

	2006–08			2007–09			2008–10			2009–11		
PROVINCE	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	ASPR (%)	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	ASPR (%)	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	ASPR (%)	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	ASPR (%)
PROVINCES COMBINED	936,585	1,278,778	73.2	1,169,675	1,651,010	70.9	1,187,278	1,687,188	70.5	1,194,291	1,721,023	69.6
BC	936,585	1,278,778	73.2	918,997	1,304,197	70.5	934,573	1,331,247	70.3	940,023	1,356,113	69.5
MB	—	—	—	250,678	346,813	72.7	252,705	355,941	71.4	254,268	364,910	70.1
ON	—	—	64.2	—	—	—	—	—	—	—	—	64.9

BC and MB are age-standardized to the 1991 Canadian population.
ON is age-standardized to the 2006 Canadian population. Additional years of data provided: 2000–02, 61.6%; 2003–05, 63.0%.
ASPR = age-standardized participation rate

Appendix F (continued)

SUPPLEMENTARY TABLES

Participation Rate: Percentage of Eligible Women in the Target Population with at Least One Pap Test in a Three-year Period, Age Specific, Non-Hysterectomy Corrected

		2007–09			2008–10			2009–11		
PROVINCE	AGE GROUP	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT
PROVINCES COMBINED	**20-69**	**898,181**	**1,285,431**	**69.9**	**903,985**	**1,314,804**	**68.8**	**932,918**	**1,389,360**	**67.1**
	20-24	113,046	131,924	**85.7**	111,948	135,228	**82.8**	114,182	142,504	**80.1**
	25-29	110,692	133,532	**82.9**	112,279	139,140	**80.7**	116,014	147,124	**78.9**
	20-29	223,738	265,456	**84.3**	224,227	274,368	**81.7**	230,196	289,628	**79.5**
	30-39	207,747	263,926	**78.7**	208,170	269,254	**77.3**	213,646	283,419	**75.4**
	40-49	213,887	304,092	**70.3**	210,824	302,347	**69.7**	213,123	310,646	**68.6**
	50-59	167,706	274,052	**61.2**	171,117	282,086	**60.7**	179,399	301,283	**59.5**
	60-69	85,103	177,905	**47.8**	89,647	186,749	**48.0**	96,554	204,384	**47.2**
AB	**20-69**	**352,176**	**471,330**	**74.7**	**357,635**	**490,972**	**72.8**	**356,253**	**507,215**	**70.2**
	20-24	40,483	49,545	**81.7**	39,860	51,456	**77.5**	38,728	52,098	**74.3**
	25-29	47,807	56,063	**85.3**	48,580	59,810	**81.2**	48,704	62,345	**78.1**
	20-29	88,290	105,608	**83.6**	88,440	111,266	**79.5**	87,432	114,443	**76.4**
	30-39	88,963	110,014	**80.9**	90,438	114,469	**79.0**	90,297	118,280	**76.3**
	40-49	84,287	112,857	**74.7**	84,185	114,613	**73.5**	82,388	115,505	**71.3**
	50-59	61,828	91,548	**67.5**	64,039	96,018	**66.7**	65,003	100,773	**64.5**
	60-69	28,808	51,303	**56.2**	30,533	54,606	**55.9**	31,133	58,214	**53.5**
SK	**20-69**	**200,359**	**314,772**	**63.7**	**202,511**	**321,182**	**63.1**	**204,696**	**327,437**	**62.5**
	20-24	30,646	35,891	**85.4**	30,782	36,744	**83.8**	30,593	37,561	**81.4**
	25-29	25,472	34,023	**74.9**	26,383	35,341	**74.7**	27,254	36,392	**74.9**
	20-29	56,118	69,914	**80.3**	57,165	72,085	**79.3**	57,847	73,953	**78.2**
	30-39	42,545	60,078	**70.8**	43,359	61,860	**70.1**	44,223	64,080	**69.0**
	40-49	45,619	72,213	**63.2**	44,403	70,915	**62.6**	43,535	69,424	**62.7**
	50-59	37,255	67,924	**54.8**	38,209	69,857	**54.7**	39,042	71,688	**54.5**
	60-69	18,822	44,643	**42.2**	19,375	46,465	**41.7**	20,049	48,292	**41.5**

Appendix F (continued)

SUPPLEMENTARY TABLES

Participation Rate: Percentage of Eligible Women in the Target Population with at Least One Pap Test in a Three-year Period, Age Specific, Non-Hysterectomy Corrected (continued)

		2007–09			2008–10			2009–11		
PROVINCE	AGE GROUP	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	PERCENT
NS	**20-69**	**219,304**	**322,241**	**68.1**	**216,190**	**324,341**	**66.7**	**214,005**	**326,984**	**65.4**
	20-24	28,617	30,948	**92.5**	27,955	31,438	**88.9**	27,721	32,036	**86.5**
	25-29	24,312	29,082	**83.6**	24,117	29,381	**82.1**	23,570	29,600	**79.6**
	20-29	52,929	60,030	**88.2**	52,072	60,819	**85.6**	51,291	61,636	**83.2**
	30-39	48,286	60,201	**80.2**	46,799	59,916	**78.1**	45,841	59,887	**76.5**
	40-49	53,252	76,537	**69.6**	51,685	74,834	**69.1**	50,182	73,301	**68.5**
	50-59	41,772	72,663	**57.5**	41,661	73,806	**56.4**	41,943	75,131	**55.8**
	60-69	23,065	52,810	**43.7**	23,973	54,966	**43.6**	24,748	57,029	**43.4**
PE	**20-69**	—	—	—	—	—	—	**31,658**	**47,914**	**66.1**
	20-24	—	—	—	—	—	—	3,938	4,876	**80.8**
	25-29	—	—	—	—	—	—	3,408	4,061	**83.9**
	20-29	—	—	—	—	—	—	7,346	8,937	**82.2**
	30-39	—	—	—	—	—	—	6,448	8,655	**74.5**
	40-49	—	—	—	—	—	—	7,198	10,928	**65.9**
	50-59	—	—	—	—	—	—	6,467	10,891	**59.4**
	60-69	—	—	—	—	—	—	4,199	8,503	**49.4**
NL	**20-69**	**126,342**	**177,088**	**71.3**	**127,649**	**178,309**	**71.6**	**126,306**	**179,810**	**70.2**
	20-24	13,300	15,540	**85.6**	13,351	15,590	**85.6**	13,202	15,933	**82.9**
	25-29	13,101	14,364	**91.2**	13,199	14,608	**90.4**	13,078	14,726	**88.8**
	20-29	26,401	29,904	**88.3**	26,550	30,198	**87.9**	26,280	30,659	**85.7**
	30-39	27,953	33,633	**83.1**	27,574	33,009	**83.5**	26,837	32,517	**82.5**
	40-49	30,729	42,485	**72.3**	30,551	41,985	**72.8**	29,820	41,488	**71.9**
	50-59	26,851	41,917	**64.1**	27,208	42,405	**64.2**	26,944	42,800	**63.0**
	60-69	14,408	29,149	**49.4**	15,766	30,712	**51.3**	16,425	32,346	**50.8**

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

Appendix F (continued)

SUPPLEMENTARY TABLES

Participation Rate: Percentage of Eligible Women in the Target Population with at Least One Pap Test in a Three-year Period, Age-standardized, Non-Hysterectomy Corrected

		2007–09			2008–10			2009–11		
PROVINCE	AGE GROUP	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	ASPR (%)	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	ASPR (%)	NUMBER OF WOMEN WHO HAD PAP TEST	POPULATION	ASPR (%)
PROVINCES COMBINED	20-69	898,181	1,285,431	72.1	903,985	1,314,804	70.8	932,918	1,389,360	69.3
AB	20-69	352,176	471,330	75.3	357,635	490,972	73.3	356,253	507,215	70.8
SK	20-69	200,359	314,772	65.8	202,511	321,182	65.2	204,696	327,437	64.6
NS	20-69	219,304	322,241	72.2	216,190	324,341	70.8	214,005	326,984	69.5
PE	20-69	—	—	—	—	—	—	31,658	47,914	69.4
NL	20-69	126,342	177,088	75.3	127,649	178,309	75.6	126,306	179,810	74.4

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).
ASPR = age-standardized participation rate
Age-standardized to 1991 Canadian population

Appendix F (continued)

SUPPLEMENTARY TABLES

Retention Rate: Percentage of Eligible Women Re-screened Within Three Years Following a Negative Pap Test in a 12-month Period

		2007			2008			2007–08		
PROVINCE	AGE GROUP	NUMBER RE-SCREENED	NUMBER OF WOMEN WHO HAD PAP TEST	PERCENT	NUMBER RE-SCREENED	NUMBER OF WOMEN WHO HAD PAP TEST	PERCENT	NUMBER RE-SCREENED	NUMBER OF WOMEN WHO HAD PAP TEST	PERCENT
PROVINCES COMBINED	**20-69**	**1,858,784**	**2,297,324**	**80.9**	**1,848,958**	**2,289,180**	**80.8**	**3,707,742**	**4,586,504**	**80.8**
	20-29	417,707	503,234	**83.0**	419,550	507,222	**82.7**	837,257	1,010,456	**82.9**
	30-39	461,475	567,157	**81.4**	452,987	559,341	**81.0**	914,462	1,126,498	**81.2**
	40-49	478,287	590,040	**81.1**	467,294	577,525	**80.9**	945,581	1,167,565	**81.0**
	50-59	352,133	439,250	**80.2**	353,876	441,966	**80.1**	706,009	881,216	**80.1**
	60-69	149,182	197,643	**75.5**	155,251	203,126	**76.4**	304,433	400,769	**76.0**
BC	**20-69**	**340,167**	**437,064**	**77.8**	**344,964**	**448,189**	**77.0**	**685,131**	**885,253**	**77.4**
	20-29	72,961	91,357	**79.9**	75,098	95,959	**78.3**	148,059	187,316	**79.0**
	30-39	83,692	106,815	**78.4**	83,317	108,413	**76.9**	167,009	215,228	**77.6**
	40-49	87,143	112,393	**77.5**	86,255	112,257	**76.8**	173,398	224,650	**77.2**
	50-59	66,790	84,867	**78.7**	68,679	87,673	**78.3**	135,469	172,540	**78.5**
	60-69	29,581	41,632	**71.1**	31,615	43,887	**72.0**	61,196	85,519	**71.6**
AB	**20-69**	**154,566**	**163,246**	**94.7**	**152,600**	**159,082**	**95.9**	**307,166**	**322,328**	**95.3**
	20-29	31,069	32,844	**94.6**	32,099	33,099	**97.0**	63,168	65,943	**95.8**
	30-39	41,018	43,259	**94.8**	40,686	42,326	**96.1**	81,704	85,585	**95.5**
	40-49	40,159	42,582	**94.3**	38,410	40,197	**95.6**	78,569	82,779	**94.9**
	50-59	29,867	31,566	**94.6**	29,202	30,665	**95.2**	59,069	62,231	**94.9**
	60-69	12,453	12,995	**95.8**	12,203	12,795	**95.4**	24,656	25,790	**95.6**
SK	**20-69**	**74,370**	**100,120**	**74.3**	**73,264**	**98,684**	**74.2**	**147,634**	**198,804**	**74.3**
	20-29	21,248	26,771	**79.4**	21,433	26,968	**79.5**	42,681	53,739	**79.4**
	30-39	16,304	21,949	**74.3**	16,219	21,740	**74.6**	32,523	43,689	**74.4**
	40-49	16,932	23,171	**73.1**	16,008	21,886	**73.1**	32,940	45,057	**73.1**
	50-59	13,857	18,853	**73.5**	13,637	18,775	**72.6**	27,494	37,628	**73.1**
	60-69	6,029	9,376	**64.3**	5,967	9,315	**64.1**	11,996	18,691	**64.2**

Appendix F (continued)

SUPPLEMENTARY TABLES

Retention Rate: Percentage of Eligible Women Re-screened Within Three Years Following a Negative Pap Test in a 12-month Period (continued)

		2007			2008			2007–08		
PROVINCE	AGE GROUP	NUMBER RE-SCREENED	NUMBER OF WOMEN WHO HAD PAP TEST	PERCENT	NUMBER RE-SCREENED	NUMBER OF WOMEN WHO HAD PAP TEST	PERCENT	NUMBER RE-SCREENED	NUMBER OF WOMEN WHO HAD PAP TEST	PERCENT
MB	**20-69**	**116,412**	**144,694**	**80.5**	**115,660**	**142,979**	**80.9**	**232,072**	**287,673**	**80.7**
	20-29	28,367	33,590	**84.5**	28,330	33,943	**83.5**	56,697	67,533	**84.0**
	30-39	26,101	32,376	**80.6**	25,995	32,280	**80.5**	52,096	64,656	**80.6**
	40-49	27,068	33,969	**79.7**	26,292	33,221	**79.1**	53,360	67,190	**79.4**
	50-59	22,649	28,473	**79.5**	22,740	28,941	**78.6**	45,389	57,414	**79.1**
	60-69	12,227	16,286	**75.1**	12,303	14,594	**84.3**	24,530	30,880	**79.4**
ON	20-66	1,012,630	1,252,917	80.8	1,005,204	1,244,421	80.8	2,017,834	2,497,338	80.8
	20-29	227,941	275,605	**82.7**	227,008	274,785	**82.6**	454,949	550,390	**82.7**
	30-39	256,072	316,690	**80.9**	250,066	310,211	**80.6**	506,138	626,901	**80.7**
	40-49	266,554	328,219	**81.2**	261,487	322,058	**81.2**	528,041	650,277	**81.2**
	50-59	187,705	235,649	**79.7**	188,899	236,703	**79.8**	376,604	472,352	**79.7**
	60-66	74,358	96,754	**76.9**	77,744	100,664	**77.2**	152,102	197,418	**77.0**
NS	**20-69**	**101,764**	**126,982**	**80.1**	**97,578**	**122,010**	**80.0**	**199,342**	**248,992**	**80.1**
	20-29	23,986	28,561	**84.0**	23,094	27,450	**84.1**	47,080	56,011	**84.1**
	30-39	24,390	29,456	**82.8**	22,958	27,832	**82.5**	47,348	57,288	**82.6**
	40-49	25,618	31,723	**80.8**	24,098	29,913	**80.6**	49,716	61,636	**80.7**
	50-59	18,964	24,305	**78.0**	18,392	23,553	**78.1**	37,356	47,858	**78.1**
	60-69	8,806	12,937	**68.1**	9,036	13,262	**68.1**	17,842	26,199	**68.1**
NL	**20-69**	**58,875**	**72,301**	**81.4**	**59,688**	**73,815**	**80.9**	**118,563**	**146,116**	**81.1**
	20-29	12,135	14,506	**83.7**	12,488	15,018	**83.2**	24,623	29,524	**83.4**
	30-39	13,898	16,612	**83.7**	13,746	16,539	**83.1**	27,644	33,151	**83.4**
	40-49	14,813	17,983	**82.4**	14,744	17,993	**81.9**	29,557	35,976	**82.2**
	50-59	12,301	15,537	**79.2**	12,327	15,656	**78.7**	24,628	31,193	**79.0**
	60-69	5,728	7,663	**74.7**	6,383	8,609	**74.1**	12,111	16,272	**74.4**

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

Appendix F (continued)

SUPPLEMENTARY TABLES

Specimen Adequacy: Percentage of Conventional Pap Test Results Reported as Unsatisfactory in a 12-month Period

		2009			2010			2011			2009–11		
PROVINCE	AGE GROUP	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT
BC	**20-69**	**17,406**	**522,526**	**3.3**	**22,562**	**523,080**	**4.3**	**21,872**	**513,570**	**4.3**	**61,840**	**1,559,176**	**4.0**
	20-29	4,028	122,800	**3.3**	5,390	122,168	**4.4**	5,162	117,465	**4.4**	14,580	362,433	**4.0**
	30-39	4,187	125,430	**3.3**	5,566	123,094	**4.5**	5,503	119,538	**4.6**	15,256	368,062	**4.1**
	40-49	3,163	123,588	**2.6**	4,362	120,899	**3.6**	4,459	117,701	**3.8**	11,984	362,188	**3.3**
	50-59	3,547	99,183	**3.6**	4,332	101,083	**4.3**	4,014	101,600	**4.0**	11,893	301,866	**3.9**
	60-69	2,481	51,525	**4.8**	2,912	55,836	**5.2**	2,734	57,266	**4.8**	8,127	164,627	**4.9**
MB	**20-69**	**5,120**	**176,298**	**2.9**	**5,948**	**165,578**	**3.6**	**5,567**	**162,632**	**3.4**	**16,635**	**504,508**	**3.3**
	20-29	1,671	45,651	**3.7**	2,019	42,058	**4.8**	1,820	41,003	**4.4**	5,510	128,712	**4.3**
	30-39	1,274	40,064	**3.2**	1,431	37,395	**3.8**	1,384	37,036	**3.7**	4,089	114,495	**3.6**
	40-49	956	38,418	**2.5**	1,136	35,549	**3.2**	1,029	33,899	**3.0**	3,121	107,866	**2.9**
	50-59	751	32,911	**2.3**	870	31,581	**2.8**	805	31,293	**2.6**	2,426	95,785	**2.5**
	60-69	468	19,254	**2.4**	492	18,995	**2.6**	529	19,401	**2.7**	1,489	57,650	**2.6**
SK	**20-69**	**1,350**	**115,962**	**1.2**	**1,225**	**113,827**	**1.1**	**1,485**	**111,567**	**1.3**	**4,060**	**341,356**	**1.2**
	20-29	471	34,177	**1.4**	437	34,504	**1.3**	565	33,317	**1.7**	1,473	101,998	**1.4**
	30-39	304	25,833	**1.2**	295	25,948	**1.1**	343	25,502	**1.3**	942	77,283	**1.2**
	40-49	222	24,242	**0.9**	226	22,479	**1.0**	269	21,615	**1.2**	717	68,336	**1.0**
	50-59	227	21,199	**1.1**	166	20,507	**0.8**	182	20,542	**0.9**	575	62,248	**0.9**
	60-69	126	10,511	**1.2**	101	10,389	**1.0**	126	10,591	**1.2**	353	31,491	**1.1**
NS	**20-69**	**1,167**	**138,657**	**0.8**	**1,270**	**133,263**	**1.0**	**1,179**	**129,937**	**0.9**	**3,616**	**401,857**	**0.9**
	20-29	283	34,122	**0.8**	328	33,034	**1.0**	321	32,260	**1.0**	932	99,416	**0.9**
	30-39	256	31,947	**0.8**	305	30,036	**1.0**	263	29,026	**0.9**	824	91,009	**0.9**
	40-49	236	32,337	**0.7**	244	30,397	**0.8**	213	28,735	**0.7**	693	91,469	**0.8**
	50-59	203	25,743	**0.8**	229	25,128	**0.9**	214	25,133	**0.9**	646	76,004	**0.8**
	60-69	189	14,508	**1.3**	164	14,668	**1.1**	168	14,783	**1.1**	521	43,959	**1.2**

Appendix F (continued)

SUPPLEMENTARY TABLES

Specimen Adequacy: Percentage of Conventional Pap Test Results Reported as Unsatisfactory in a 12-month Period (continued)

		2009			2010			2011			2009–11		
PROVINCE	AGE GROUP	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT
PE	**20-69**	**175**	**20,220**	**0.9**	**170**	**18,752**	**0.9**	**260**	**19,808**	**1.3**	**605**	**58,780**	**1.0**
	20-29	34	4,819	**0.7**	37	4,531	**0.8**	69	4,736	**1.5**	140	14,086	**1.0**
	30-39	41	4,537	**0.9**	34	4,141	**0.8**	49	4,336	**1.1**	124	13,014	**1.0**
	40-49	37	4,442	**0.8**	39	4,021	**1.0**	69	4,131	**1.7**	145	12,594	**1.2**
	50-59	35	3,925	**0.9**	37	3,636	**1.0**	35	3,927	**0.9**	107	11,488	**0.9**
	60-69	28	2,497	**1.1**	23	2,423	**0.9**	38	2,678	**1.4**	89	7,598	**1.2**

Appendix F (continued)

SUPPLEMENTARY TABLES

Specimen Adequacy: Percentage of Liquid-based Cytology Pap Test Results Reported as Unsatisfactory in a 12-month Period

		2009			2010			2011			2009–11		
PROVINCE	AGE GROUP	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT	NUMBER OF UNSATISFACTORY TESTS	TOTAL PAP TESTS	PERCENT
AB	**20-69**	**5,909**	**227,221**	**2.6**	**5,986**	**182,496**	**3.3**	**5,806**	**178,214**	**3.3**	**17,701**	**587,931**	**3.0**
	20-29	1,010	53,761	**1.9**	1,152	45,208	**2.5**	1,091	43,081	**2.5**	3,253	142,050	**2.3**
	30-39	1,324	60,182	**2.2**	1,350	48,380	**2.8**	1,256	46,359	**2.7**	3,930	154,921	**2.5**
	40-49	1,142	53,378	**2.1**	1,155	41,698	**2.8**	1,117	40,250	**2.8**	3,414	135,326	**2.5**
	50-59	1,523	41,525	**3.7**	1,435	33,053	**4.3**	1,463	33,337	**4.4**	4,421	107,915	**4.1**
	60-69	910	18,375	**5.0**	894	14,157	**6.3**	879	15,187	**5.8**	2,683	47,719	**5.6**
NL	**20-69**	**477**	**83,888**	**0.6**	**694**	**87,866**	**0.8**	**542**	**81,433**	**0.7**	**1,713**	**253,187**	**0.7**
	20-29	102	19,134	**0.5**	124	20,093	**0.6**	132	18,970	**0.7**	358	58,197	**0.6**
	30-39	92	18,765	**0.5**	153	18,988	**0.8**	124	17,683	**0.7**	369	55,436	**0.7**
	40-49	94	19,860	**0.5**	145	20,208	**0.7**	105	18,532	**0.6**	344	58,600	**0.6**
	50-59	114	16,795	**0.7**	152	17,849	**0.9**	97	16,369	**0.6**	363	51,013	**0.7**
	60-69	75	9,334	**0.8**	120	10,728	**1.1**	84	9,879	**0.9**	279	29,941	**0.9**

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population). Not all rejected Pap tests in NL may have been excluded from the numerator.

Appendix F (continued)

SUPPLEMENTARY TABLES

Screening Test Results: Percentage of Women by Their Most Severe Pap Test Result in a 12-month Period

				NEGATIVE		ASC-US		LSIL		AGC		ASC-H		HSIL+	
YEAR	PROVINCE	AGE GROUP	NUMBER OF SATIS-FACTORY PAP TESTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2009	PROVINCES COMBINED	**20-69**	**1,062,618**	**1,013,463**	**95.4**	**23,924**	**2.3**	**15,320**	**1.4**	**1,322**	**0.1**	**2,691**	**0.3**	**5,898**	**0.6**
		20-29	245,311	221,414	**90.3**	10,778	**4.4**	8,664	**3.5**	160	**0.1**	1,307	**0.5**	2,988	**1.2**
		30-39	251,058	239,643	**95.5**	5,459	**2.2**	3,378	**1.3**	251	**0.1**	700	**0.3**	1,627	**0.6**
		40-49	252,955	244,691	**96.7**	4,547	**1.8**	2,090	**0.8**	422	**0.2**	410	**0.2**	795	**0.3**
		50-59	205,610	201,414	**98.0**	2,373	**1.2**	929	**0.5**	356	**0.2**	197	**0.1**	341	**0.2**
		60-69	107,684	106,301	**98.7**	767	**0.7**	259	**0.2**	133	**0.1**	77	**0.1**	147	**0.1**
	AB	**20-69**	**208,611**	**197,023**	**94.4**	**3,582**	**1.7**	**6,000**	**2.9**	**218**	**0.1**	**487**	**0.2**	**1,301**	**0.6**
		20-29	47,995	42,202	**87.9**	1,409	**2.9**	3,386	**7.1**	25	**0.1**	243	**0.5**	730	**1.5**
		30-39	54,361	51,440	**94.6**	951	**1.7**	1,446	**2.7**	41	**0.1**	134	**0.2**	349	**0.6**
		40-49	50,217	48,475	**96.5**	718	**1.4**	749	**1.5**	58	**0.1**	74	**0.1**	143	**0.3**
		50-59	38,903	38,017	**97.7**	385	**1.0**	341	**0.9**	71	**0.2**	27	**0.1**	62	**0.2**
		60-69	17,135	16,889	**98.6**	119	**0.7**	78	**0.5**	23	**0.1**	9	**0.1**	17	**0.1**
	BC	**20-69**	**480,519**	**464,429**	**96.7**	**9,943**	**2.1**	**2,317**	**0.5**	**515**	**0.1**	**1,052**	**0.2**	**2,263**	**0.5**
		20-29	110,305	102,620	**93.0**	4,857	**4.4**	1,147	**1.0**	67	**0.1**	539	**0.5**	1,075	**1.0**
		30-39	113,436	109,614	**96.6**	2,264	**2.0**	547	**0.5**	80	**0.1**	274	**0.2**	657	**0.6**
		40-49	116,063	113,166	**97.5**	1,820	**1.6**	405	**0.3**	180	**0.2**	156	**0.1**	336	**0.3**
		50-59	93,011	91,707	**98.6**	777	**0.8**	181	**0.2**	146	**0.2**	63	**0.1**	137	**0.1**
		60-69	47,704	47,322	**99.2**	225	**0.5**	37	**0.1**	42	**0.1**	20	**0.0**	58	**0.1**
	MB	**20-69**	**154,686**	**145,059**	**93.8**	**4,639**	**3.0**	**3,065**	**2.0**	**166**	**0.1**	**411**	**0.3**	**1,346**	**0.9**
		20-29	37,485	32,867	**87.7**	1,882	**5.0**	1,798	**4.8**	23	**0.1**	165	**0.4**	750	**2.0**
		30-39	34,395	32,323	**94.0**	1,018	**3.0**	606	**1.8**	34	**0.1**	96	**0.3**	318	**0.9**
		40-49	34,707	32,992	**95.1**	979	**2.8**	434	**1.3**	50	**0.1**	78	**0.2**	174	**0.5**
		50-59	30,205	29,296	**97.0**	561	**1.9**	178	**0.6**	42	**0.1**	53	**0.2**	75	**0.2**
		60-69	17,894	17,581	**98.3**	199	**1.1**	49	**0.3**	17	**0.1**	19	**0.1**	29	**0.2**
	NS	**20-69**	**124,532**	**117,499**	**94.4**	**3,855**	**3.1**	**1,812**	**1.5**	**261**	**0.2**	**556**	**0.4**	**549**	**0.4**
		20-29	29,031	25,716	**88.6**	1,700	**5.9**	1,060	**3.7**	25	**0.1**	281	**1.0**	249	**0.9**
		30-39	28,192	26,636	**94.5**	836	**3.0**	357	**1.3**	58	**0.2**	143	**0.5**	162	**0.6**
		40-49	29,628	28,438	**96.0**	716	**2.4**	242	**0.8**	77	**0.3**	76	**0.3**	79	**0.3**
		50-59	23,970	23,266	**97.1**	458	**1.9**	106	**0.4**	67	**0.3**	32	**0.1**	41	**0.2**
		60-69	13,711	13,443	**98.0**	145	**1.1**	47	**0.3**	34	**0.2**	24	**0.2**	18	**0.1**

Appendix F (continued)

SUPPLEMENTARY TABLES

Screening Test Results: Percentage of Women by Their Most Severe Pap Test Result in a 12-month Period (continued)

				NEGATIVE		ASC-US		LSIL		AGC		ASC-H		HSIL+	
YEAR	PROVINCE	AGE GROUP	NUMBER OF SATIS-FACTORY PAP TESTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2009	PE	**20-69**	**17,919**	**17,175**	**95.8**	**288**	**1.6**	**211**	**1.2**	**20**	**0.1**	**62**	**0.3**	**163**	**0.9**
		20-29	4,051	3,691	**91.1**	126	**3.1**	136	**3.4**	X	**X**	24	**0.6**	71	**1.8**
		30-39	3,821	3,641	**95.3**	61	**1.6**	45	**1.2**	X	**X**	15	**0.4**	56	**1.5**
		40-49	4,060	3,933	**96.9**	63	**1.6**	22	**0.5**	6	**0.1**	13	**0.3**	23	**0.6**
		50-59	3,649	3,589	**98.4**	31	**0.8**	8	**0.2**	6	**0.2**	9	**0.2**	6	**0.2**
		60-69	2,338	2,321	**99.3**	7	**0.3**	0	**0.0**	X	**X**	X	**X**	7	**0.3**
	NL	**20-69**	**76,351**	**72,278**	**94.7**	**1,617**	**2.1**	**1,915**	**2.5**	**142**	**0.2**	**123**	**0.2**	**276**	**0.4**
		20-29	16,444	14,318	**87.1**	804	**4.9**	1,137	**6.9**	17	**0.1**	55	**0.3**	113	**0.7**
		30-39	16,853	15,989	**94.9**	329	**2.0**	377	**2.2**	35	**0.2**	38	**0.2**	85	**0.5**
		40-49	18,280	17,687	**96.8**	251	**1.4**	238	**1.3**	51	**0.3**	13	**0.1**	40	**0.2**
		50-59	15,872	15,539	**97.9**	161	**1.0**	115	**0.7**	24	**0.2**	13	**0.1**	20	**0.1**
		60-69	8,902	8,745	**98.2**	72	**0.8**	48	**0.5**	15	**0.2**	X	**X**	18	**0.2**
2010	**PROVINCES COMBINED**	**20-69**	**1,005,203**	**953,187**	**94.8**	**24,606**	**2.4**	**16,483**	**1.6**	**1,691**	**0.2**	**3,042**	**0.3**	**6,194**	**0.6**
		20-29	232,994	208,471	**89.5**	10,680	**4.6**	9,165	**3.9**	175	**0.1**	1,434	**0.6**	3,069	**1.3**
		30-39	233,465	221,320	**94.8**	5,540	**2.4**	3,703	**1.6**	355	**0.2**	820	**0.4**	1,727	**0.7**
		40-49	233,311	224,290	**96.1**	4,809	**2.1**	2,349	**1.0**	532	**0.2**	415	**0.2**	916	**0.4**
		50-59	197,119	192,458	**97.6**	2,622	**1.3**	1,005	**0.5**	442	**0.2**	269	**0.1**	323	**0.2**
		60-69	108,314	106,648	**98.5**	955	**0.9**	261	**0.2**	187	**0.2**	104	**0.1**	159	**0.1**
	BC	**20-69**	**475,742**	**456,081**	**95.9**	**11,213**	**2.4**	**3,877**	**0.8**	**660**	**0.1**	**1,185**	**0.2**	**2,726**	**0.6**
		20-29	108,578	99,700	**91.8**	5,028	**4.6**	1,952	**1.8**	65	**0.1**	565	**0.5**	1,268	**1.2**
		30-39	110,042	105,408	**95.8**	2,517	**2.3**	886	**0.8**	135	**0.1**	312	**0.3**	784	**0.7**
		40-49	111,993	108,255	**96.7**	2,201	**2.0**	690	**0.6**	218	**0.2**	177	**0.2**	452	**0.4**
		50-59	93,768	91,928	**98.0**	1,118	**1.2**	281	**0.3**	178	**0.2**	102	**0.1**	161	**0.2**
		60-69	51,361	50,790	**98.9**	349	**0.7**	68	**0.1**	64	**0.1**	29	**0.1**	61	**0.1**
	AB	**20-69**	**168,237**	**157,522**	**93.6**	**3,422**	**2.0**	**5,591**	**3.3**	**177**	**0.1**	**543**	**0.3**	**982**	**0.6**
		20-29	40,925	35,445	**86.6**	1,450	**3.5**	3,186	**7.8**	15	**0.0**	292	**0.7**	537	**1.3**
		30-39	44,219	41,524	**93.9**	877	**2.0**	1,337	**3.0**	32	**0.1**	161	**0.4**	288	**0.7**
		40-49	39,205	37,611	**95.9**	676	**1.7**	706	**1.8**	49	**0.1**	48	**0.1**	115	**0.3**
		50-59	30,872	30,144	**97.6**	307	**1.0**	295	**1.0**	60	**0.2**	32	**0.1**	34	**0.1**
		60-69	13,016	12,798	**98.3**	112	**0.9**	67	**0.5**	21	**0.2**	10	**0.1**	8	**0.1**

Appendix F (continued)

SUPPLEMENTARY TABLES

Screening Test Results: Percentage of Women by Their Most Severe Pap Test Result in a 12-month Period (continued)

				NEGATIVE		ASC-US		LSIL		AGC		ASC-H		HSIL+	
YEAR	PROVINCE	AGE GROUP	NUMBER OF SATIS-FACTORY PAP TESTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2010	MB	**20-69**	**145,554**	**137,120**	**94.2**	**3,759**	**2.6**	**2,752**	**1.9**	**132**	**0.1**	**385**	**0.3**	**1,406**	**1.0**
		20-29	34,722	30,773	**88.6**	1,479	**4.3**	1,557	**4.5**	13	**0.0**	154	**0.4**	746	**2.1**
		30-39	32,185	30,244	**94.0**	876	**2.7**	595	**1.8**	22	**0.1**	91	**0.3**	357	**1.1**
		40-49	32,012	30,563	**95.5**	765	**2.4**	386	**1.2**	45	**0.1**	55	**0.2**	198	**0.6**
		50-59	29,022	28,230	**97.3**	472	**1.6**	167	**0.6**	29	**0.1**	54	**0.2**	70	**0.2**
		60-69	17,613	17,310	**98.3**	167	**0.9**	47	**0.3**	23	**0.1**	31	**0.2**	35	**0.2**
	NS	**20-69**	**119,846**	**112,524**	**93.9**	**4,214**	**3.5**	**1,643**	**1.4**	**364**	**0.3**	**551**	**0.5**	**550**	**0.5**
		20-29	28,070	24,632	**87.8**	1,897	**6.8**	965	**3.4**	47	**0.2**	269	**1.0**	260	**0.9**
		30-39	26,565	24,956	**93.9**	878	**3.3**	345	**1.3**	82	**0.3**	157	**0.6**	147	**0.6**
		40-49	27,918	26,658	**95.5**	776	**2.8**	216	**0.8**	115	**0.4**	72	**0.3**	81	**0.3**
		50-59	23,438	22,743	**97.0**	462	**2.0**	89	**0.4**	76	**0.3**	36	**0.2**	32	**0.1**
		60-69	13,855	13,535	**97.7**	201	**1.5**	28	**0.2**	44	**0.3**	17	**0.1**	30	**0.2**
	PE	**20-69**	**16,817**	**16,250**	**96.6**	**225**	**1.3**	**145**	**0.9**	**37**	**0.2**	**57**	**0.3**	**103**	**0.6**
		20-29	3,851	3,582	**93.0**	112	**2.9**	93	**2.4**	X	**X**	22	**0.6**	38	**1.0**
		30-39	3,598	3,449	**95.9**	57	**1.6**	31	**0.9**	9	**0.3**	14	**0.4**	38	**1.1**
		40-49	3,685	3,594	**97.5**	37	**1.0**	15	**0.4**	10	**0.3**	13	**0.4**	16	**0.4**
		50-59	3,401	3,355	**98.6**	15	**0.4**	X	**X**	13	**0.4**	7	**0.2**	7	**0.2**
		60-69	2,282	2,270	**99.5**	X	**X**	X	**X**	X	**X**	X	**X**	X	**X**
	NL	**20-69**	**79,007**	**73,690**	**93.3**	**1,773**	**2.2**	**2,475**	**3.1**	**321**	**0.4**	**321**	**0.4**	**427**	**0.5**
		20-29	16,848	14,339	**85.1**	714	**4.2**	1,412	**8.4**	31	**0.2**	132	**0.8**	220	**1.3**
		30-39	16,856	15,739	**93.4**	335	**2.0**	509	**3.0**	75	**0.4**	85	**0.5**	113	**0.7**
		40-49	18,498	17,609	**95.2**	354	**1.9**	336	**1.8**	95	**0.5**	50	**0.3**	54	**0.3**
		50-59	16,618	16,058	**96.6**	248	**1.5**	169	**1.0**	86	**0.5**	38	**0.2**	19	**0.1**
		60-69	10,187	9,945	**97.6**	122	**1.2**	49	**0.5**	34	**0.3**	16	**0.2**	21	**0.2**
2011	**PROVINCES COMBINED**	**20-69**	**983,482**	**932,780**	**94.8**	**21,472**	**2.2**	**17,313**	**1.8**	**1,955**	**0.2**	**3,648**	**0.4**	**6,314**	**0.6**
		20-29	225,033	201,371	**89.5**	8,596	**3.8**	10,141	**4.5**	200	**0.1**	1,602	**0.7**	3,123	**1.4**
		30-39	226,429	214,672	**94.8**	4,829	**2.1**	3,704	**1.6**	379	**0.2**	962	**0.4**	1,883	**0.8**
		40-49	224,135	215,473	**96.1**	4,395	**2.0**	2,232	**1.0**	601	**0.3**	593	**0.3**	841	**0.4**
		50-59	196,916	192,038	**97.5**	2,691	**1.4**	949	**0.5**	553	**0.3**	363	**0.2**	322	**0.2**
		60-69	110,969	109,226	**98.4**	961	**0.9**	287	**0.3**	222	**0.2**	128	**0.1**	145	**0.1**

Appendix F (continued)

SUPPLEMENTARY TABLES

Screening Test Results: Percentage of Women by Their Most Severe Pap Test Result in a 12-month Period (continued)

				NEGATIVE		ASC-US		LSIL		AGC		ASC-H		HSIL+	
YEAR	PROVINCE	AGE GROUP	NUMBER OF SATIS-FACTORY PAP TESTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2011	BC	**20-69**	**467,007**	**447,887**	**95.9**	**8,289**	**1.8**	**5,157**	**1.1**	**1,066**	**0.2**	**1,707**	**0.4**	**2,901**	**0.6**
		20-29	104,218	95,839	**92.0**	3,137	**3.0**	3,032	**2.9**	116	**0.1**	711	**0.7**	1,383	**1.3**
		30-39	106,683	102,243	**95.8**	1,813	**1.7**	1,079	**1.0**	193	**0.2**	469	**0.4**	886	**0.8**
		40-49	108,569	104,912	**96.6**	1,839	**1.7**	733	**0.7**	344	**0.3**	306	**0.3**	435	**0.4**
		50-59	94,442	92,467	**97.9**	1,091	**1.2**	253	**0.3**	307	**0.3**	176	**0.2**	148	**0.2**
		60-69	53,095	52,426	**98.7**	409	**0.8**	60	**0.1**	106	**0.2**	45	**0.1**	49	**0.1**
	AB	**20-69**	**165,674**	**156,217**	**94.3**	**2,613**	**1.6**	**5,356**	**3.2**	**123**	**0.1**	**432**	**0.3**	**933**	**0.6**
		20-29	39,396	34,324	**87.1**	1,170	**3.0**	3,150	**8.0**	13	**0.0**	228	**0.6**	511	**1.3**
		30-39	42,832	40,489	**94.5**	691	**1.6**	1,237	**2.9**	20	**0.0**	120	**0.3**	275	**0.6**
		40-49	38,060	36,780	**96.6**	456	**1.2**	629	**1.7**	33	**0.1**	49	**0.1**	113	**0.3**
		50-59	31,264	30,664	**98.1**	234	**0.7**	273	**0.9**	41	**0.1**	26	**0.1**	26	**0.1**
		60-69	14,122	13,960	**98.9**	62	**0.4**	67	**0.5**	16	**0.1**	9	**0.1**	8	**0.1**
	NS	**20-69**	**116,696**	**108,911**	**93.3**	**4,729**	**4.1**	**1,690**	**1.4**	**272**	**0.2**	**588**	**0.5**	**506**	**0.4**
		20-29	27,422	23,925	**87.2**	2,016	**7.4**	962	**3.5**	24	**0.1**	261	**1.0**	234	**0.9**
		30-39	25,645	23,875	**93.1**	1,035	**4.0**	358	**1.4**	70	**0.3**	165	**0.6**	142	**0.6**
		40-49	26,283	24,914	**94.8**	910	**3.5**	223	**0.8**	85	**0.3**	84	**0.3**	67	**0.3**
		50-59	23,381	22,558	**96.5**	561	**2.4**	107	**0.5**	61	**0.3**	54	**0.2**	40	**0.2**
		60-69	13,965	13,639	**97.7**	207	**1.5**	40	**0.3**	32	**0.2**	24	**0.2**	23	**0.2**
	PE	**20-69**	**17,368**	**16,679**	**96.0**	**337**	**1.9**	**139**	**0.8**	**33**	**0.2**	**66**	**0.4**	**114**	**0.7**
		20-29	3,949	3,642	**92.2**	141	**3.6**	100	**2.5**	X	**X**	27	**0.7**	37	**0.9**
		30-39	3,615	3,459	**95.7**	73	**2.0**	23	**0.6**	X	**X**	15	**0.4**	41	**1.1**
		40-49	3,712	3,586	**96.6**	70	**1.9**	12	**0.3**	12	**0.3**	13	**0.4**	19	**0.5**
		50-59	3,611	3,539	**98.0**	39	**1.1**	X	**X**	8	**0.2**	8	**0.2**	13	**0.4**
		60-69	2,481	2,453	**98.9**	14	**0.6**	0	**0.0**	7	**0.3**	X	**X**	X	**X**
	MB	**20-69**	**143,610**	**135,277**	**94.2**	**3,693**	**2.6**	**2,582**	**1.8**	**189**	**0.1**	**477**	**0.3**	**1,392**	**1.0**
		20-29	34,060	30,120	**88.4**	1,441	**4.2**	1,559	**4.6**	12	**0.0**	198	**0.6**	730	**2.1**
		30-39	32,013	30,125	**94.1**	842	**2.6**	510	**1.6**	29	**0.1**	117	**0.4**	390	**1.2**
		40-49	30,683	29,291	**95.5**	765	**2.5**	335	**1.1**	45	**0.1**	84	**0.3**	163	**0.5**
		50-59	28,920	28,121	**97.2**	492	**1.7**	129	**0.4**	58	**0.2**	54	**0.2**	66	**0.2**
		60-69	17,934	17,620	**98.2**	153	**0.9**	49	**0.3**	45	**0.3**	24	**0.1**	43	**0.2**

Appendix F (continued)

SUPPLEMENTARY TABLES

Screening Test Results: Percentage of Women by Their Most Severe Pap Test Result in a 12-month Period (continued)

				NEGATIVE		ASC-US		LSIL		AGC		ASC-H		HSIL+	
YEAR	PROVINCE	AGE GROUP	NUMBER OF SATIS-FACTORY PAP TESTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2011	NL	**20-69**	**73,127**	**67,809**	**92.7**	**1,811**	**2.5**	**2,389**	**3.3**	**272**	**0.4**	**378**	**0.5**	**468**	**0.6**
		20-29	15,988	13,521	**84.6**	691	**4.3**	1,338	**8.4**	33	**0.2**	177	**1.1**	228	**1.4**
		30-39	15,641	14,481	**92.6**	375	**2.4**	497	**3.2**	63	**0.4**	76	**0.5**	149	**1.0**
		40-49	16,828	15,990	**95.0**	355	**2.1**	300	**1.8**	82	**0.5**	57	**0.3**	44	**0.3**
		50-59	15,298	14,689	**96.0**	274	**1.8**	183	**1.2**	78	**0.5**	45	**0.3**	29	**0.2**
		60-69	9,372	9,128	**97.4**	116	**1.2**	71	**0.8**	16	**0.2**	23	**0.2**	18	**0.2**
2009–11	**PROVINCES COMBINED**	**20-69**	**3,051,303**	**2,899,430**	**95.0**	**70,002**	**2.3**	**49,116**	**1.6**	**4,968**	**0.2**	**9,381**	**0.3**	**18,406**	**0.6**
		20-29	703,338	631,256	**89.8**	30,054	**4.3**	27,970	**4.0**	535	**0.1**	4,343	**0.6**	9,180	**1.3**
		30-39	710,952	675,635	**95.0**	15,828	**2.2**	10,785	**1.5**	985	**0.1**	2,482	**0.3**	5,237	**0.7**
		40-49	710,401	684,454	**96.3**	13,751	**1.9**	6,671	**0.9**	1,555	**0.2**	1,418	**0.2**	2,552	**0.4**
		50-59	599,645	585,910	**97.7**	7,686	**1.3**	2,883	**0.5**	1,351	**0.2**	829	**0.1**	986	**0.2**
		60-69	326,967	322,175	**98.5**	2,683	**0.8**	807	**0.2**	542	**0.2**	309	**0.1**	451	**0.1**
	BC	**20-69**	**1,423,268**	**1,368,397**	**96.1**	**29,445**	**2.1**	**11,351**	**0.8**	**2,241**	**0.2**	**3,944**	**0.3**	**7,890**	**0.6**
		20-29	323,101	298,159	**92.3**	13,022	**4.0**	6,131	**1.9**	248	**0.1**	1,815	**0.6**	3,726	**1.2**
		30-39	330,161	317,265	**96.1**	6,594	**2.0**	2,512	**0.8**	408	**0.1**	1,055	**0.3**	2,327	**0.7**
		40-49	336,625	326,333	**96.9**	5,860	**1.7**	1,828	**0.5**	742	**0.2**	639	**0.2**	1,223	**0.4**
		50-59	281,221	276,102	**98.2**	2,986	**1.1**	715	**0.3**	631	**0.2**	341	**0.1**	446	**0.2**
		60-69	152,160	150,538	**98.9**	983	**0.6**	165	**0.1**	212	**0.1**	94	**0.1**	168	**0.1**
	AB	**20-69**	**542,522**	**510,762**	**94.1**	**9,617**	**1.8**	**16,947**	**3.1**	**518**	**0.1**	**1,462**	**0.3**	**3,216**	**0.6**
		20-29	128,316	111,971	**87.3**	4,029	**3.1**	9,722	**7.6**	53	**0.0**	763	**0.6**	1,778	**1.4**
		30-39	141,412	133,453	**94.4**	2,519	**1.8**	4,020	**2.8**	93	**0.1**	415	**0.3**	912	**0.6**
		40-49	127,482	122,866	**96.4**	1,850	**1.5**	2,084	**1.6**	140	**0.1**	171	**0.1**	371	**0.3**
		50-59	101,039	98,825	**97.8**	926	**0.9**	909	**0.9**	172	**0.2**	85	**0.1**	122	**0.1**
		60-69	44,273	43,647	**98.6**	293	**0.7**	212	**0.5**	60	**0.1**	28	**0.1**	33	**0.1**
	MB	**20-69**	**443,850**	**417,456**	**94.1**	**12,091**	**2.7**	**8,399**	**1.9**	**487**	**0.1**	**1,273**	**0.3**	**4,144**	**0.9**
		20-29	106,267	93,760	**88.2**	4,802	**4.5**	4,914	**4.6**	48	**0.0**	517	**0.5**	2,226	**2.1**
		30-39	98,593	92,692	**94.0**	2,736	**2.8**	1,711	**1.7**	85	**0.1**	304	**0.3**	1,065	**1.1**
		40-49	97,402	92,846	**95.3**	2,509	**2.6**	1,155	**1.2**	140	**0.1**	217	**0.2**	535	**0.5**
		50-59	88,147	85,647	**97.2**	1,525	**1.7**	474	**0.5**	129	**0.1**	161	**0.2**	211	**0.2**
		60-69	53,441	52,511	**98.3**	519	**1.0**	145	**0.3**	85	**0.2**	74	**0.1**	107	**0.2**

Appendix F (continued)

SUPPLEMENTARY TABLES

Screening Test Results: Percentage of Women by Their Most Severe Pap Test Result in a 12-month Period (continued)

				NEGATIVE		ASC-US		LSIL		AGC		ASC-H		HSIL+	
YEAR	PROVINCE	AGE GROUP	NUMBER OF SATIS-FACTORY PAP TESTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2009–11	NS	**20-69**	**361,074**	**338,934**	**93.9**	**12,798**	**3.5**	**5,145**	**1.4**	**897**	**0.2**	**1,695**	**0.5**	**1,605**	**0.4**
		20-29	84,523	74,273	**87.9**	5,613	**6.6**	2,987	**3.5**	96	**0.1**	811	**1.0**	743	**0.9**
		30-39	80,402	75,467	**93.9**	2,749	**3.4**	1,060	**1.3**	210	**0.3**	465	**0.6**	451	**0.6**
		40-49	83,829	80,010	**95.4**	2,402	**2.9**	681	**0.8**	277	**0.3**	232	**0.3**	227	**0.3**
		50-59	70,789	68,567	**96.9**	1,481	**2.1**	302	**0.4**	204	**0.3**	122	**0.2**	113	**0.2**
		60-69	41,531	40,617	**97.8**	553	**1.3**	115	**0.3**	110	**0.3**	65	**0.2**	71	**0.2**
	PE	**20-69**	**52,104**	**50,104**	**96.2**	**850**	**1.6**	**495**	**1.0**	**90**	**0.2**	**185**	**0.4**	**380**	**0.7**
		20-29	11,851	10,915	**92.1**	379	**3.2**	329	**2.8**	9	**0.1**	73	**0.6**	146	**1.2**
		30-39	11,034	10,549	**95.6**	191	**1.7**	99	**0.9**	16	**0.1**	44	**0.4**	135	**1.2**
		40-49	11,457	11,113	**97.0**	170	**1.5**	49	**0.4**	28	**0.2**	39	**0.3**	58	**0.5**
		50-59	10,661	10,483	**98.3**	85	**0.8**	16	**0.2**	27	**0.3**	24	**0.2**	26	**0.2**
		60-69	7,101	7,044	**99.2**	25	**0.4**	X	**X**	10	**0.1**	X	**X**	15	**0.2**
	NL	**20-69**	**228,485**	**213,777**	**93.6**	**5,201**	**2.3**	**6,779**	**3.0**	**735**	**0.3**	**822**	**0.4**	**1,171**	**0.5**
		20-29	49,280	42,178	**85.6**	2,209	**4.5**	3,887	**7.9**	81	**0.2**	364	**0.7**	561	**1.1**
		30-39	49,350	46,209	**93.6**	1,039	**2.1**	1,383	**2.8**	173	**0.4**	199	**0.4**	347	**0.7**
		40-49	53,606	51,286	**95.7**	960	**1.8**	874	**1.6**	228	**0.4**	120	**0.2**	138	**0.3**
		50-59	47,788	46,286	**96.9**	683	**1.4**	467	**1.0**	188	**0.4**	96	**0.2**	68	**0.1**
		60-69	28,461	27,818	**97.7**	310	**1.1**	168	**0.6**	65	**0.2**	43	**0.2**	57	**0.2**

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the population).
X = suppressed because of small numbers

Appendix F (continued)

SUPPLEMENTARY TABLES

Screening Test Results: Percentage of Women by Their Most Severe Pap Test Result in a 12-month Period – Saskatchewan

			NEGATIVE		ABNORMAL, LOW GRADE		ABNORMAL, HIGH GRADE	
YEAR	AGE GROUP	NUMBER OF SATISFACTORY PAP TESTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2009	**20-69**	**106,436**	**101,722**	**95.6**	**3,759**	**3.5**	**955**	**0.9**
	20-29	29,909	27,323	**91.4**	2,060	6.9	526	**1.8**
	30-39	23,462	22,481	**95.8**	742	3.2	239	**1.0**
	40-49	22,793	22,102	**97.0**	564	2.5	127	**0.6**
	50-59	20,206	19,883	**98.4**	283	1.4	40	**0.2**
	60-69	10,066	9,933	**98.7**	110	1.1	23	**0.2**
2010	**20-69**	**103,902**	**98,885**	**95.2**	**4,018**	**3.9**	**999**	**1.0**
	20-29	29,949	27,089	**90.5**	2,313	7.7	547	**1.8**
	30-39	23,418	22,320	**95.3**	824	3.5	274	**1.2**
	40-49	21,055	20,437	**97.1**	514	2.4	104	**0.5**
	50-59	19,492	19,160	**98.3**	281	1.4	51	**0.3**
	60-69	9,988	9,879	**98.9**	86	0.9	23	**0.2**
2011	**20-69**	**102,367**	**97,876**	**95.6**	**3,563**	**3.5**	**928**	**0.9**
	20-29	29,061	26,467	**91.1**	2,121	7.3	473	**1.6**
	30-39	23,139	22,139	**95.7**	736	3.2	264	**1.1**
	40-49	20,294	19,759	**97.4**	428	2.1	107	**0.5**
	50-59	19,667	19,415	**98.7**	200	1.0	52	**0.3**
	60-69	10,206	10,096	**98.9**	78	0.8	32	**0.3**
2009–11	**20-69**	**312,705**	**298,483**	**95.5**	**11,340**	**3.6**	**2,882**	**0.9**
	20-29	88,919	80,879	**91.0**	6,494	7.3	1,546	**1.7**
	30-39	70,019	66,940	**95.6**	2,302	3.3	777	**1.1**
	40-49	64,142	62,298	**97.1**	1,506	2.3	338	**0.5**
	50-59	59,365	58,458	**98.5**	764	1.3	143	**0.2**
	60-69	30,260	29,908	**98.8**	274	0.9	78	**0.3**

SK provided 3 cytology categories (normal, abnormal low and abnormal high). Abnormal low includes AGC, AGCN, AGEC, AGECN, AGEM, ASA, ASCU, ASE and LSIL. Abnormal high includes ADC, AIS, ASHG, HSIL, PC2, PSCC and SC. See Appendix D for definitions.

Appendix F (continued)

SUPPLEMENTARY TABLES

Time to Colposcopy: Percentage of Women with a High-grade Pap Test Result (AGC, ASC-H or HSIL+) Who Had Follow-up Colposcopy Within Three, Six, Nine and 12 Months of the Pap Test

AGC, ASC-H or HSIL+

				0–3 MONTHS		3–6 MONTHS		6–9 MONTHS		9–12 MONTHS		TOTAL	
YEAR	PROVINCE	AGE GROUP	NUMBER OF AGC, ASC-H OR HSIL+ RESULTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2009–10	**PROVINCES COMBINED**	**20-69**	**37,523**	21,775	**58.0**	**6,840**	**18.2**	**1,660**	**4.4**	**744**	**2.0**	**31,019**	**82.7**
		20-29	15,863	8,776	**55.3**	3,305	**20.8**	811	**5.1**	405	**2.6**	13,297	**83.8**
		30-39	10,426	6,488	**62.2**	1,777	**17.0**	453	**4.3**	187	**1.8**	8,905	**85.4**
		40-49	6,479	3,892	**60.1**	1,090	**16.8**	245	**3.8**	97	**1.5**	5,324	**82.2**
		50-59	3,369	1,890	**56.1**	499	**14.8**	110	**3.3**	38	**1.1**	2,537	**75.3**
		60-69	1,386	729	**52.6**	169	**12.2**	41	**3.0**	17	**1.2**	956	**69.0**
	BC	**20-69**	**15,627**	8,033	**51.4**	**3,681**	**23.6**	**821**	**5.3**	**350**	**2.2**	**12,885**	**82.5**
		20-29	7,026	3,530	**50.2**	1,845	**26.3**	408	**5.8**	185	**2.6**	5,968	**84.9**
		30-39	4,269	2,412	**56.5**	922	**21.6**	224	**5.2**	96	**2.2**	3,654	**85.6**
		40-49	2,640	1,362	**51.6**	586	**22.2**	121	**4.6**	45	**1.7**	2,114	**80.1**
		50-59	1,250	578	**46.2**	250	**20.0**	47	**3.8**	14	**1.1**	889	**71.1**
		60-69	442	151	**34.2**	78	**17.6**	21	**4.8**	10	**2.3**	260	**58.8**
	AB	**20-69**	**3,828**	1,275	**33.3**	**1,545**	**40.4**	**293**	**7.7**	**129**	**3.4**	**3,242**	**84.7**
		20-29	1,847	608	**32.9**	752	**40.7**	154	**8.3**	73	**4.0**	1,587	**85.9**
		30-39	1,032	363	**35.2**	425	**41.2**	76	**7.4**	37	**3.6**	901	**87.3**
		40-49	519	167	**32.2**	218	**42.0**	36	**6.9**	13	**2.5**	434	**83.6**
		50-59	325	109	**33.5**	113	**34.8**	23	**7.1**	X	**X**	250	**76.9**
		60-69	105	28	**26.7**	37	**35.2**	X	**X**	X	**X**	70	**66.7**
	MB	**20-69**	**2,840**	1,388	**48.9**	**671**	**23.6**	**183**	**6.4**	**135**	**4.8**	**2,377**	**83.7**
		20-29	1,370	611	**44.6**	327	**23.9**	99	**7.2**	86	**6.3**	1,123	**82.0**
		30-39	672	351	**52.2**	164	**24.4**	48	**7.1**	22	**3.3**	585	**87.1**
		40-49	458	254	**55.5**	114	**24.9**	20	**4.4**	19	**4.1**	407	**88.9**
		50-59	230	114	**49.6**	52	**22.6**	13	**5.7**	6	**2.6**	185	**80.4**
		60-69	110	58	**52.7**	14	**12.7**	X	**X**	X	**X**	77	**70.0**

Appendix F (continued)

SUPPLEMENTARY TABLES

Time to Colposcopy: Percentage of Women with a High-grade Pap Test Result (AGC, ASC-H or HSIL+) Who Had Follow-up Colposcopy Within Three, Six, Nine and 12 Months of the Pap Test

AGC, ASC-H or HSIL+ (continued)

				0–3 MONTHS		3–6 MONTHS		6–9 MONTHS		9–12 MONTHS		TOTAL	
YEAR	PROVINCE	AGE GROUP	NUMBER OF AGC, ASC-H OR HSIL+ RESULTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
	ON (0-6 MONTHS)	**20-69**	**12,479**	—	—	**10,230**	**82.0**	—	—	—	—	—	—
		20-29	4,525	—	—	3,661	**80.9**	—	—	—	—	—	—
		30-39	3,722	—	—	3,131	**84.1**	—	—	—	—	—	—
		40-49	2,375	—	—	1,982	**83.5**	—	—	—	—	—	—
		50-59	1,288	—	—	1,008	**78.3**	—	—	—	—	—	—
		60-69	569	—	—	448	**78.7**	—	—	—	—	—	—
	NS	**20-69**	**2,749**	**849**	**30.9**	**943**	**34.3**	**363**	**13.2**	130	**4.7**	2,285	**83.1**
		20-29	1,095	366	**33.4**	381	**34.8**	150	**13.7**	61	**5.6**	958	**87.5**
		30-39	731	231	**31.6**	266	**36.4**	105	**14.4**	32	**4.4**	634	**86.7**
		40-49	487	127	**26.1**	172	**35.3**	68	**14.0**	20	**4.1**	387	**79.5**
		50-59	276	81	**29.3**	84	**30.4**	27	**9.8**	13	**4.7**	205	**74.3**
		60-69	160	44	**27.5**	40	**25.0**	13	**8.1**	X	**X**	101	**63.1**

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the entire population).
ON 0–3 month data is for 8–182 days; other provinces' 0–3 month data is for 8–90 days. PE was unable to report the numerator because colposcopy records are kept by individual physicians. NL did not provided AGC data in 2009–10. BC does not receive 100% of the colposcopy reports. Only those for which a report was received were submitted.
AGSC = atypical glandular cells; ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions or more severe;
X = suppressed because of small numbers

Appendix F (continued)

SUPPLEMENTARY TABLES

ASC-H or HSIL+

				0–3 MONTHS		3–6 MONTHS		6–9 MONTHS		9–12 MONTHS		TOTAL	
YEAR	PROVINCE	AGE GROUP	NUMBER OF ASC-H OR HSIL+ RESULTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2009–10	**PROVINCES COMBINED**	**20-69**	**15,921**	7,272	**45.7**	**4,682**	**29.4**	**1,148**	**7.2**	**532**	**3.3**	**13,634**	**85.6**
		20-29	7,870	3,396	**43.2**	2,383	**30.3**	598	**7.6**	314	**4.0**	6,691	**85.0**
		30-39	4,354	2,116	**48.6**	1,253	**28.8**	313	**7.2**	131	**3.0**	3,813	**87.6**
		40-49	2,283	1,114	**48.8**	672	**29.4**	152	**6.7**	56	**2.5**	1,994	**87.3**
		50-59	1,000	482	**48.2**	272	**27.2**	59	**5.9**	22	**2.2**	835	**83.5**
		60-69	414	164	**39.6**	102	**24.6**	26	**6.3**	9	**2.2**	301	**72.7**
	BC	**20-69**	**7,226**	3,864	**53.5**	**1,761**	**24.4**	**393**	**5.4**	**164**	**2.3**	**6,182**	**85.6**
		20-29	3,447	1,739	**50.4**	914	**26.5**	201	**5.8**	90	**2.6**	2,944	**85.4**
		30-39	2,027	1,173	**57.9**	440	**21.7**	108	**5.3**	45	**2.2**	1,766	**87.1**
		40-49	1,121	634	**56.6**	266	**23.7**	55	**4.9**	19	**1.7**	974	**86.9**
		50-59	463	253	**54.6**	106	**22.9**	20	**4.3**	X	**X**	384	**82.9**
		60-69	168	65	**38.7**	35	**20.8**	9	**5.4**	X	**X**	114	**67.9**
	AB	**20-69**	**3,408**	1,142	**33.5**	**1,421**	**41.7**	**257**	**7.5**	**123**	**3.6**	**2,943**	**86.4**
		20-29	1,807	589	**32.6**	741	**41.0**	149	**8.2**	72	**4.0**	1,551	**85.8**
		30-39	956	340	**35.6**	400	**41.8**	67	**7.0**	36	**3.8**	843	**88.2**
		40-49	407	138	**33.9**	180	**44.2**	26	**6.4**	10	**2.5**	354	**87.0**
		50-59	181	63	**34.8**	76	**42.0**	12	**6.6**	X	**X**	155	**85.6**
		60-69	57	12	**21.1**	24	**42.1**	X	**X**	X	**S**	40	**70.2**
	MB	**20-69**	**2,590**	1,278	**49.3**	**617**	**23.8**	**171**	**6.6**	**129**	**5.0**	**2,195**	**84.7**
		20-29	1,340	599	**44.7**	318	**23.7**	97	**7.2**	85	**6.3**	1,099	**82.0**
		30-39	628	335	**53.3**	150	**23.9**	45	**7.2**	19	**3.0**	549	**87.4**
		40-49	379	211	**55.7**	97	**25.6**	16	**4.2**	18	**4.7**	342	**90.2**
		50-59	169	89	**52.7**	39	**23.1**	10	**5.9**	X	**X**	143	**84.6**
		60-69	74	44	**59.5**	13	**17.6**	X	**X**	X	**X**	62	**83.8**
	NS	**20-69**	**2,139**	705	**33.0**	**779**	**36.4**	**304**	**14.2**	**102**	**4.8**	**1,890**	**88.4**
		20-29	1,026	347	**33.8**	363	**35.4**	139	**13.5**	58	**5.7**	**907**	**88.4**
		30-39	594	191	**32.2**	233	**39.2**	88	**14.8**	27	**4.5**	**539**	**90.7**
		40-49	299	82	**27.4**	116	**38.8**	53	**17.7**	9	**3.0**	**260**	**87.0**
		50-59	136	56	**41.2**	40	**29.4**	15	**11.0**	7	**5.1**	**118**	**86.8**
		60-69	84	29	**34.5**	27	**32.1**	9	**10.7**	**X**	**X**	**66**	**78.6**

Appendix F (continued)

SUPPLEMENTARY TABLES

ASC-H or HSIL+ (continued)

				0–3 MONTHS		3–6 MONTHS		6–9 MONTHS		9–12 MONTHS		TOTAL	
YEAR	PROVINCE	AGE GROUP	NUMBER OF ASC-H OR HSIL+ RESULTS	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT	NUMBER OF WOMEN	PERCENT
2009–10	NL	**20-69**	**558**	**283**	**50.7**	**104**	**18.6**	**23**	**4.1**	14	**2.5**	424	**76.0**
		20-29	250	122	**48.8**	47	**18.8**	12	**4.8**	9	**3.6**	190	**76.0**
		30-39	149	77	**51.7**	30	**20.1**	X	**X**	X	**X**	116	**77.9**
		40-49	77	49	**63.6**	13	**16.9**	X	**X**	0	**0.0**	64	**83.1**
		50-59	51	21	**41.2**	11	**21.6**	X	**X**	X	**X**	35	**68.6**
		60-69	31	14	**45.2**	X	**X**	X	**X**	0	**0.0**	19	**61.3**

BC does not receive 100% of colposcopy reports and therefore only those for which a report was received were submitted. AB provided data for the areas in which the organized program operated during these years (approximately 40% of the entire population). ON did not provide a breakdown for ASC-H/HSIL. PE was unable to report the numerator because colposcopy records are kept by individual physicians. NL provided 2010 data.
ASC-H = atypical squamous cells, high-grade; HSIL+ = high-grade squamous intraepithelial lesions or more severe;
X = suppressed because of small numbers

Appendix F (continued)

SUPPLEMENTARY TABLES

Histological Investigation: Percentage of Women with a High-grade Abnormal Pap Test Result (ASC-H or HSIL+) Who Had a Histological Investigation Within 12 Months of the Pap Test

ASC-H or HSIL+ and Biopsy

		2009			2010			2009–10		
PROVINCE	AGE GROUP	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF ASC-H OR HSIL+ RESULTS	PERCENT	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF ASC-H OR HSIL+ RESULTS	PERCENT	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF ASC-H OR HSIL+ RESULTS	PERCENT
PROVINCES COMBINED	**20-69**	**6,623**	**8,301**	**79.8**	**7,004**	**8,578**	**81.7**	**13,627**	**16,879**	**80.7**
	20-29	3,276	4,165	**78.7**	3,340	4,179	**79.9**	6,616	8,344	**79.3**
	30-39	1,844	2,245	**82.1**	2,003	2,392	**83.7**	3,847	4,637	**83.0**
	40-49	976	1,173	**83.2**	1,051	1,234	**85.2**	2,027	2,407	**84.2**
	50-59	377	508	**74.2**	439	539	**81.4**	816	1,047	**77.9**
	60-69	150	210	**71.4**	171	234	**73.1**	321	444	**72.3**
BC	**20-69**	**3,295**	**3,683**	**89.5**	**3,896**	**4,337**	**89.8**	**7,191**	**8,020**	**89.7**
	20-29	1,568	1,798	**87.2**	1,790	2,041	**87.7**	3,358	3,839	**87.5**
	30-39	948	1,037	**91.4**	1,117	1,217	**91.8**	2,065	2,254	**91.6**
	40-49	512	540	**94.8**	626	683	**91.7**	1,138	1,223	**93.0**
	50-59	194	219	**88.6**	267	288	**92.7**	461	507	**90.9**
	60-69	73	89	**82.0**	96	108	**88.9**	169	197	**85.8**
AB	**20-69**	**1,285**	**1,853**	**69.3**	**1,169**	**1,555**	**75.2**	**2,454**	**3,408**	**72.0**
	20-29	712	982	**72.5**	640	825	**77.6**	1,352	1,807	**74.8**
	30-39	352	501	**70.3**	348	455	**76.5**	700	956	**73.2**
	40-49	157	236	**66.5**	126	171	**73.7**	283	407	**69.5**
	50-59	49	102	**48.0**	45	79	**57.0**	94	181	**51.9**
	60-69	15	32	**46.9**	10	25	**40.0**	25	57	**43.9**
MB	**20-69**	**1,074**	**1,429**	**75.2**	**1,044**	**1,425**	**73.3**	**2,118**	**2,854**	**74.2**
	20-29	545	754	**72.3**	496	724	**68.5**	1,041	1,478	**70.4**
	30-39	258	331	**77.9**	284	364	**78.0**	542	695	**78.0**
	40-49	168	206	**81.6**	165	198	**83.3**	333	404	**82.4**
	50-59	74	99	**74.7**	68	90	**75.6**	142	189	**75.1**
	60-69	29	39	**74.4**	31	49	**63.3**	60	88	**68.2**
NS	**20-69**	**780**	**1,105**	**70.6**	**772**	**1,101**	**70.1**	**1,552**	**2,206**	**70.4**
	20-29	368	530	**69.4**	366	529	**69.2**	734	1,059	**69.3**
	30-39	228	305	**74.8**	216	304	**71.1**	444	609	**72.9**
	40-49	110	155	**71.0**	112	153	**73.2**	222	308	**72.1**
	50-59	46	73	**63.0**	48	68	**70.6**	94	141	**66.7**
	60-69	28	42	**66.7**	30	47	**63.8**	58	89	**65.2**

Appendix F (continued)

SUPPLEMENTARY TABLES

Histological Investigation: Percentage of Women with a High-grade Abnormal Pap Test Result (ASC-H or HSIL+) Who Had a Histological Investigation Within 12 Months of the Pap Test

ASC-H or HSIL+ and Biopsy (continued)

		2009			2010			2009–10		
PROVINCE	AGE GROUP	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF ASC-H OR HSIL+ RESULTS	PERCENT	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF ASC-H OR HSIL+ RESULTS	PERCENT	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF ASC-H OR HSIL+ RESULTS	PERCENT
PE	**20-69**	**189**	**231**	**81.8**	**123**	**160**	**76.9**	**312**	**391**	**79.8**
	20-29	83	101	**82.2**	48	60	**80.0**	131	161	**81.4**
	30-39	58	71	**81.7**	38	52	**73.1**	96	123	**78.0**
	40-49	29	36	**80.6**	22	29	**75.9**	51	65	**78.5**
	50-69	19	23	**82.6**	15	19	**78.9**	34	42	**81.0**

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the entire population). For PE the denominator does not exclude all biopsy tests performed within 7 days of the Pap test. Age groups 50–59 and 60–69 are combined to avoid suppression.

ASC-H or HSIL+, Colposcopy and Biopsy

		2009			2010			2009–10		
PROVINCE	AGE GROUP	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF COLPOSCOPIES	PERCENT	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF COLPOSCOPIES	PERCENT	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF COLPOSCOPIES	PERCENT
PROVINCES COMBINED	**20-69**	**5,737**	**6,433**	**89.2**	**6,161**	**6,777**	**90.9**	**11,898**	**13,210**	**90.1**
	20-29	2,860	3,234	**88.4**	2,969	3,267	**90.9**	5,829	6,501	**89.7**
	30-39	1,592	1,757	**90.6**	1,740	1,940	**89.7**	3,332	3,697	**90.1**
	40-49	854	932	**91.6**	941	998	**94.3**	1,795	1,930	**93.0**
	50-59	320	382	**83.8**	375	418	**89.7**	695	800	**86.9**
	60-69	111	128	**86.7**	136	154	**88.3**	247	282	**87.6**

Appendix F (continued)

SUPPLEMENTARY TABLES

ASC-H or HSIL+, Colposcopy and Biopsy (continued)

		2009			2010			2009–10		
PROVINCE	AGE GROUP	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF COLPOSCOPIES	PERCENT	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF COLPOSCOPIES	PERCENT	NUMBER OF HISTOLOGICAL INVESTIGATIONS	NUMBER OF COLPOSCOPIES	PERCENT
BC	**20-69**	**2,598**	**2,807**	**92.6**	**3,176**	**3,375**	**94.1**	**5,774**	**6,182**	**93.4**
	20-29	1,235	1,369	**90.2**	1,467	1,575	**93.1**	2,702	2,944	**91.8**
	30-39	754	804	**93.8**	892	962	**92.7**	1,646	1,766	**93.2**
	40-49	419	429	**97.7**	538	545	**98.7**	957	974	**98.3**
	50-59	151	159	**95.0**	214	225	**95.1**	365	384	**95.1**
	60-69	39	46	**84.8**	65	68	**95.6**	104	114	**91.2**
AB	**20-69**	**1,285**	**1,575**	**81.6**	**1,169**	**1,368**	**85.5**	**2,454**	**2,943**	**83.4**
	20-29	712	837	**85.1**	640	714	**89.6**	1,352	1,551	**87.2**
	30-39	352	425	**82.8**	348	418	**83.3**	700	843	**83.0**
	40-49	157	203	**77.3**	126	151	**83.4**	283	354	**79.9**
	50-59	49	87	**56.3**	45	68	**66.2**	94	155	**60.6**
	60-69	15	23	**65.2**	10	17	**58.8**	25	40	**62.5**
MB	**20-69**	**1,074**	**1,108**	**96.9**	**1,044**	**1,087**	**96.0**	**2,118**	**2,195**	**96.5**
	20-29	545	576	**94.6**	496	523	**94.8**	1,041	1,099	**94.7**
	30-39	258	260	**99.2**	284	289	**98.3**	542	549	**98.7**
	40-49	168	169	**99.4**	165	173	**95.4**	333	342	**97.4**
	50-59	74	74	**100.0**	68	69	**98.6**	142	143	**99.3**
	60-69	29	29	**100.0**	31	33	**93.9**	60	62	**96.8**
NS	**20-69**	**780**	**943**	**82.7**	**772**	**947**	**81.5**	**1,552**	**1,890**	**82.1**
	20-29	368	452	**81.4**	366	455	**80.4**	734	907	**80.9**
	30-39	228	268	**85.1**	216	271	**79.7**	444	539	**82.4**
	40-49	110	131	**84.0**	112	129	**86.8**	222	260	**85.4**
	50-59	46	62	**74.2**	48	56	**85.7**	94	118	**79.7**
	60-69	28	30	**93.3**	30	36	**83.3**	58	66	**87.9**

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the entire population).
BC does not receive 100% of the colposcopy reports, only those for which a report is submitted. The numerator only counts histological investigations for patients for whom there is a recorded colposcopy.

Appendix F (continued)

SUPPLEMENTARY TABLES

Cytology Histology Agreement: Percentage of High-grade Pap Test Results (ASC-H or HSIL+) That Had CIN 2 (Moderate Dysplasia) or CIN 3+ (Severe Dysplasia, Carcinoma in Situ or Invasive Cervical Cancer) Biopsy Results Within 12 Months of the Pap Test

ASC-H

		2009			2010			2011		
PROVINCE	TYPE OF RESULTS	HISTOLOGY ASC-H	CYTOLOGY ASC-H	PERCENT	HISTOLOGY ASC-H	CYTOLOGY ASC-H	PERCENT	HISTOLOGY ASC-H	CYTOLOGY ASC-H	PERCENT
BC	**< CIN 2 (Neg, CIN 1, Other)**	**441**	**1,123**	**39.3**	**546**	**1,254**	**43.5**	**987**	**2,377**	**41.5**
	CIN 2	273	1,123	**24.3**	295	1,254	**23.5**	568	2,377	**23.9**
	CIN 3+	409	1,123	**36.4**	413	1,254	**32.9**	822	2,377	**34.6**
AB	**< CIN 2 (Neg, CIN 1, Other)**	**190**	**307**	**61.9**	**227**	**388**	**58.5**	**417**	**695**	**60.0**
	CIN 2/CIN 3+	117	307	**38.1**	161	388	**41.5**	278	695	**40.0**
MB	**< CIN 2 (Neg, CIN 1, Other)**	**269**	**396**	**67.9**	**210**	**345**	**60.9**	**479**	**741**	**64.6**
	CIN 2	53	396	**13.4**	54	345	**15.7**	107	741	**14.4**
	CIN 3+	74	396	**18.7**	81	345	**23.5**	155	741	**20.9**
NS	**< CIN 2 (Neg, CIN 1, Other)**	**371**	**727**	**51.0**	**348**	**711**	**48.9**	**719**	**1,438**	**50.0**
	CIN 2	119	727	**16.4**	129	711	**18.1**	248	1,438	**17.2**
	CIN 3+	237	727	**32.6**	234	711	**32.9**	471	1,438	**32.8**
PE	**< CIN 2 (Neg, CIN 1, Other)**	**31**	**62**	**50.0**	**22**	**56**	**39.3**	**53**	**118**	**44.9**
	CIN 2/CIN 3+	31	62	**50.0**	34	56	**60.7**	65	118	**55.1**

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

Appendix F (continued)

SUPPLEMENTARY TABLES

HSIL+

		2009			2010			2011		
PROVINCE	TYPE OF RESULTS	HISTOLOGY HSIL+	CYTOLOGY HSIL+	PERCENT	HISTOLOGY ASC-H	CYTOLOGY HSIL+	PERCENT	HISTOLOGY HSIL+	CYTOLOGY HSIL+	PERCENT
BC	**< CIN 2 (Neg, CIN 1, Other)**	**730**	**2,433**	**30.0**	**910**	**2,906**	**31.3**	**1,640**	**5,339**	**30.7**
	CIN 2	505	2,433	**20.8**	611	2,906	**21.0**	1,116	5,339	**20.9**
	CIN 3+	1,198	2,433	**49.2**	1,385	2,906	**47.7**	2,583	5,339	**48.4**
AB	**< CIN 2 (Neg, CIN 1, Other)**	**387**	**990**	**39.1**	**334**	**791**	**42.2**	**721**	**1,781**	**40.5**
	CIN 2/CIN 3+	603	990	**60.9**	457	791	**57.8**	1,060	1,781	**59.5**
MB	**< CIN 2 (Neg, CIN 1, Other)**	**528**	**1,325**	**39.8**	**495**	**1,392**	**35.6**	**1,023**	**2,717**	**37.7**
	CIN 2	280	1,325	**21.1**	300	1,392	**21.6**	580	2,717	**21.3**
	CIN 3+	517	1,325	**39.0**	597	1,392	**42.9**	1,114	2,717	**41.0**
NS	**< CIN 2 (Neg, CIN 1, Other)**	**208**	**672**	**31.0**	**210**	**657**	**32.0**	**418**	**1,329**	**31.5**
	CIN 2	110	672	**16.4**	105	657	**16.0**	215	1,329	**16.2**
	CIN 3+	354	672	**52.7**	342	657	**52.1**	696	1,329	**52.4**
PE	**< CIN 2 (Neg, CIN 1, Other)**	**38**	**202**	**18.8**	**19**	**116**	**16.4**	**57**	**318**	**17.9**
	CIN 2/CIN 3+	164	202	**81.2**	97	116	**83.6**	261	318	**82.1**

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

Appendix F (continued)

SUPPLEMENTARY TABLES

Pre-cancer Incidence Rate: Number of Pre-cancerous Lesions (CIN 2 – Moderate Dysplasia, or CIN 3 – Severe Dysplasia and Cervical Carcinoma in Situ, Excluding Adenocarcinoma in Situ) Detected per 1,000 Women Screened in a 12-month Period.

		2009			2010			2009–10		
PROVINCE	AGE GROUP	NUMBER OF CIN 2 OR CIN 3 RESULTS	NUMBER OF WOMEN	RATE PER 1,000	NUMBER OF CIN 2 OR CIN 3 RESULTS	NUMBER OF WOMEN	RATE PER 1,000	NUMBER OF CIN 2 OR CIN 3 RESULTS	NUMBER OF WOMEN	RATE PER 1,000
PROVINCES COMBINED	**20-69**	**6,245**	**1,126,063**	**5.5**	**6,578**	**1,068,855**	**6.2**	**12,823**	**2,194,918**	**5.8**
	20-29	3,148	258,962	**12.2**	3,249	247,247	**13.1**	6,397	506,209	**12.6**
	30-39	1,793	264,736	**6.8**	1,908	247,654	**7.7**	3,701	512,390	**7.2**
	40-49	876	266,005	**3.3**	907	246,638	**3.7**	1,783	512,643	**3.5**
	50-59	294	218,728	**1.3**	341	209,943	**1.6**	635	428,671	**1.5**
	60-69	134	117,632	**1.1**	173	117,373	**1.5**	307	235,005	**1.3**
BC	**20-69**	**2,957**	**496,746**	**6.0**	**3,267**	**496,717**	**6.6**	**6,224**	**993,463**	**6.3**
	20-29	1,373	114,024	**12.0**	1,492	113,522	**13.1**	2,865	227,546	**12.6**
	30-39	885	117,266	**7.5**	985	115,176	**8.6**	1,870	232,442	**8.0**
	40-49	451	119,048	**3.8**	498	116,110	**4.3**	949	235,158	**4.0**
	50-59	167	96,365	**1.7**	192	97,819	**2.0**	359	194,184	**1.8**
	60-69	81	50,043	**1.6**	100	54,090	**1.8**	181	104,133	**1.7**
AB	**20-69**	**945**	**215,877**	**4.4**	**852**	**174,877**	**4.9**	**1,797**	**390,754**	**4.6**
	20-29	543	49,365	**11.0**	489	42,143	**11.6**	1,032	91,508	**11.3**
	30-39	274	55,880	**4.9**	253	45,648	**5.5**	527	101,528	**5.2**
	40-49	106	51,231	**2.1**	85	40,355	**2.1**	191	91,586	**2.1**
	50-69	22	59,401	**0.4**	25	46,731	**0.5**	47	106,132	**0.4**
MB	**20-69**	**1,085**	**157,001**	**6.9**	**1,204**	**148,329**	**8.1**	**2,289**	**305,330**	**7.5**
	20-29	634	38,458	**16.5**	669	35,834	**18.7**	1,303	74,292	**17.5**
	30-39	264	34,901	**7.6**	306	32,778	**9.3**	570	67,679	**8.4**
	40-49	122	35,057	**3.5**	145	32,482	**4.5**	267	67,539	**4.0**
	50-59	52	30,496	**1.7**	54	29,379	**1.8**	106	59,875	**1.8**
	60-69	13	18,089	**0.7**	30	17,856	**1.7**	43	35,945	**1.2**

Appendix F (continued)

SUPPLEMENTARY TABLES

Pre-cancer Incidence Rate: Number of Pre-cancerous Lesions (CIN 2 – Moderate Dysplasia, or CIN 3 – Severe Dysplasia and Cervical Carcinoma in Situ, Excluding Adenocarcinoma in Situ) Detected per 1,000 Women Screened in a 12-month Period. (continued)

		2009			2010			2009–10		
PROVINCE	AGE GROUP	NUMBER OF CIN 2 OR CIN 3 RESULTS	NUMBER OF WOMEN	RATE PER 1,000	NUMBER OF CIN 2 OR CIN 3 RESULTS	NUMBER OF WOMEN	RATE PER 1,000	NUMBER OF CIN 2 OR CIN 3 RESULTS	NUMBER OF WOMEN	RATE PER 1,000
NS	**20-69**	**779**	**125,098**	**6.2**	**811**	**120,438**	**6.7**	**1,590**	**245,536**	**6.5**
	20-29	361	29,249	**12.3**	378	28,282	**13.4**	739	57,531	**12.8**
	30-39	221	28,247	**7.8**	230	26,670	**8.6**	451	54,917	**8.2**
	40-49	131	29,743	**4.4**	118	28,008	**4.2**	249	57,751	**4.3**
	50-69	38	24,055	**1.6**	49	23,558	**2.1**	87	47,613	**1.8**
	60-69	28	13,804	**2.0**	36	13,920	**2.6**	64	27,724	**2.3**
PE	**20-69**	**146**	**20,220**	**7.2**	**98**	**18,751**	**5.2**	**244**	**38,971**	**6.3**
	20-29	68	4,819	**14.1**	35	4,531	**7.7**	103	9,350	**11.0**
	30-39	47	4,537	**10.4**	35	4,141	**8.5**	82	8,678	**9.4**
	40-49	19	4,442	**4.3**	16	4,021	**4.0**	35	8,463	**4.1**
	50-69	12	6,422	**1.9**	12	6,058	**2.0**	24	12,480	**1.9**
NL	**20-69**	**333**	**111,121**	**3.0**	**346**	**109,743**	**3.2**	**679**	**220,864**	**3.1**
	20-29	169	23,047	**7.3**	186	22,935	**8.1**	355	45,982	**7.7**
	30-39	102	23,905	**4.3**	99	23,241	**4.3**	201	47,146	**4.3**
	40-49	47	26,484	**1.8**	45	25,662	**1.8**	92	52,146	**1.8**
	50-69	15	37,685	**0.4**	16	37,905	**0.4**	31	75,590	**0.4**

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the entire population). PE includes unsatisfactory Pap tests in denominator. NL data included CIN 3 only. AB, PE and NL age groups 50–59 and 60–69 are combined to avoid suppression.

Appendix F (continued)

SUPPLEMENTARY TABLES

Cancer Incidence: Number of New Cases of Squamous Cell and Non-squamous Cell Invasive Cervical Cancer per 100,000 Women, Not Age Standardized, 2009-10

			SQUAMOUS		NON-SQUAMOUS	
PROVINCE	AGE GROUP	POPULATION	NUMBER OF CASES	CRUDE RATE PER 100,000 WOMEN	NUMBER OF CASES	CRUDE RATE PER 100,000 WOMEN
PROVINCES COMBINED	**20+**	**8,300,473**	**584**	**7.0**	**293**	**3.5**
BC	20+	3,591,347	249	6.9	120	3.3
AB	20+	1,104,045	92	8.3	34	3.1
SK	20+	777,998	59	7.6	28	3.6
MB	20+	920,522	58	6.3	37	4.0
NB	20+	607,451	30	4.9	19	3.1
NS	20+	771,615	42	5.4	28	3.6
PE	20+	112,290	9	8.0	X	X
NL	20+	415,205	45	10.8	23	5.5

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the entire population).
X = suppressed because of small numbers

Cancer Incidence: Number of New Cases of Squamous Cell and Non-squamous Cell Invasive Cervical Cancer per 100,000 Women, Age Standardized, 2009-10

			SQUAMOUS		NON-SQUAMOUS	
PROVINCE	AGE GROUP	POPULATION	NUMBER OF CASES	CRUDE RATE PER 100,000 WOMEN	NUMBER OF CASES	CRUDE RATE PER 100,000 WOMEN
PROVINCES COMBINED	**20+**	**8,188,183**	**575**	**7.1**	**289**	**3.6**
BC	20+	3,591,347	249	7.1	120	3.5
AB	20+	1,104,045	92	8.2	34	3.1
SK	20+	777,998	59	8.0	28	4.0
MB	20+	920,522	58	6.2	37	3.9
NB	20+	607,451	30	5.1	19	3.6
NS	20+	771,615	42	5.8	28	3.6
NL	20+	415,205	45	10.9	23	6.4

Age-standardized incidence rates for Provinces Combined only include provinces with complete age-breakdown data (PE, SK excluded).

Appendix F (continued)

SUPPLEMENTARY TABLES

Proportion of Cancers Detected at Stage 1: Percentage of Cases of Invasive Cervical Cancer Diagnosed at FIGO Stage 1 in a 12-month Period

		2009			2010			2009–10		
PROVINCE	AGE GROUP	NUMBER OF CASES AT STAGE 1	NUMBER OF CERVICAL CANCER	PERCENT	NUMBER OF CASES AT STAGE 1	NUMBER OF CERVICAL CANCER	PERCENT	NUMBER OF CASES AT STAGE 1	NUMBER OF CERVICAL CANCER	PERCENT
PROVINCES COMBINED	**20-69**	**108**	**213**	**51**	**208**	**367**	**57**	**316**	**572**	**55**
BC	20-69	—	—	—	100	168	60	100	168	60
AB	20-69	32	60	53	28	55	51	60	115	52
SK	20-69	17	41	41	22	46	48	39	87	45
MB	20-69	26	47	55	19	35	54	45	82	55
NS	20-69	18	33	55	19	26	73	37	59	63
PE	20-69	0	8	0	X	X	X	X	X	X
NL	20-69	15	24	63	20	37	54	35	61	57

AB provided data for the areas in which the organized program operated during these years (approximately 40% of the entire population). SK and PE provided staging information for the 20–69 age group, but the denominator is based on the 20+ age group. NT provided data for 2007-10 and is therefore not included in the table. However, for 2007-10, the proportion of cancers detected at stage 1 for NT is 50%.
X = suppressed because of small numbers

Appendix F (continued)

SUPPLEMENTARY TABLES

Screening History: Percentage of Women with Invasive Cervical Cancer Whose Last Pap Test Was Six Months to Less than Three Years, Three to Five Years or More than Five Years Before the Date of Cancer Diagnosis

Squamous Cell Carcinoma

			0.5-3 YEARS		3-5 YEARS		>5 YEARS OR NEVER	
YEAR	PROVINCE†	CASES	SQUAMOUS CASES	PERCENT (%)	SQUAMOUS CASES	PERCENT (%)	SQUAMOUS CASES	PERCENT (%)
2009	Provinces Combined	201	34	16.9	37	18.4	130	64.7
2010	Provinces Combined	200	41	20.5	40	20.0	119	59.5
2009–2010	Provinces Combined	401	75	18.7	77	19.2	249	62.1

† The >5 or never category includes women whose Pap tests were > 5 year 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.

Non–squamous Cell Carcinoma

			0.5-3 YEARS		3-5 YEARS		>5 YEARS OR NEVER	
YEAR	PROVINCE†	CASES	SQUAMOUS CASES	PERCENT (%)	SQUAMOUS CASES	PERCENT (%)	SQUAMOUS CASES	PERCENT (%)
2009	Provinces Combined	100	21	21.0	10	10.0	69	69.0
2010	Provinces Combined	109	25	22.9	11	10.1	73	67.0
2009–2010	Provinces Combined	209	46	22.0	21	10.0	142	67.9

† The >5 or never category includes women whose Pap tests were > 5 year 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.

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