

UPDATE ON CERVICAL SCREENING IN NEWFOUNDLAND AND LABRADOR 2013

We are pleased to present the first published Cervical Screening Initiatives (CSI) program report for Newfoundland and Labrador (NL). The CSI program acknowledges the integral role of all health care providers, laboratory staff, registry staff, educators and community organizations that collaborate to support cervical screening.

The NL CSI Program aims to establish a comprehensive Cervical Cancer Screening model that includes all the required elements of an organized screening program. In 2003, the provincial Department of Health and Community Services launched the CSI program. Much of the groundwork and infrastructure of the program has been established and at the same time, screening participation rates have shown significant improvement. Women requiring follow-up, through Pap testing or colposcopy, are now monitored to ensure their health records demonstrate timely access to care.

Each year hundreds of front line physicians, gynecologists, nurse practitioners and nurses screen over 75,000 women for cervical cancer and its precursors. On average 5-8% of these tests show abnormal results requiring follow up investigations. Over 6000 Pap tests were abnormal in 2012; fortunately for those women there is strong evidence that indicates that a comprehensive cervical screening program can reduce the incidence and mortality of cervical cancer and thus improve health outcomes.^{1,2} However, between 2010-2012, there were approximately 55,000 women who were under screened (more than 3 years since last Pap test) and never screened (more than 10 years since last Pap test).

The following report provides an overview of the program to date. It also illustrates the overall development of a province-wide cervical screening program that is aligned with the Provincial Cancer Control Strategy.³

Cervical Screening in Newfoundland and Labrador

In 2012, cervical cancer was the second leading cause of death for women worldwide, and in Canada it was estimated that there will be 1350 new cases and 350 deaths due to cervical cancer annually.⁴ These statistics are troubling considering the abundance of evidence indicates that cervical cancer is highly preventable with regular screening.¹⁻⁴

Lack of participation in cervical screening remains the most significant risk factor in the prevention of this disease.^{5,6} Cervical cancer and its precursors can be detected with effective and efficient treatment options that are available. Yet, the majority of women who present with cervical cancer have little or no screening history.⁶ NL has seen substantive increases in screening since the inception of the CSI program. The most notable of these increases, illustrated in Figure 1, are women in age groups 50-59 years and 60-69 years. A major goal of the CSI program is to increase screening participation in women who are underscreened.



Approximately 70% of women have routine Pap testing and on average 80% of the women return for repeat Pap testing within 3 years.

FIGURE 1: *Participation Rates by Age Group*

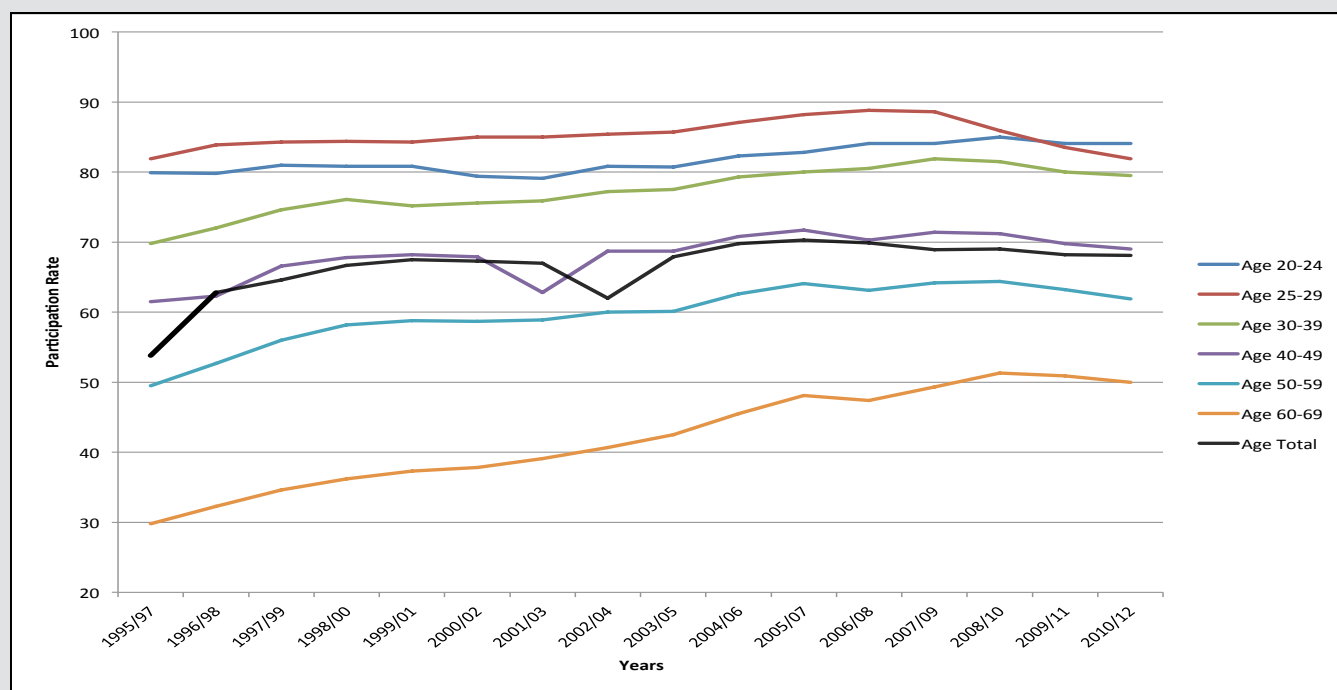


Figure 2:

Components of an organized screening program:

- ✓ Target group for screening
- ✓ Frequency for screening
- ✓ Informed target group
- ✗ Population database to invite for screening
- ✓ Means to invite women for screening and re-screening
- ✓ Competent facilities for collection, processing and reporting pap tests
- ✓ Means to ensure women with abnormal test result attend for care
- ✓ Effective and efficient treatment of abnormalities
- ✓ Means of monitoring coverage of women at risk and other relevant process measures
- ✓ Means of monitoring disease in population and relating to screening history

* Performance Monitoring for Cervical Cancer Screening Programs in Canada, 2009.⁹

Organized Cervical Screening Program

Cervical screening is optimized under the organized screening program. The minimum essential elements of an organized cervical screening program were identified in Canada as early as the 1973 Conference of Deputy Ministers of Health.⁷ Based on that conference and the Canadian Programmatic Guidelines, the further development of the NL CSI program requires coordinated strategies to establish public and professional education; provide timely accessible screening; realign screening infrastructure; update technology, electronic records and the Provincial Cervical Cytology Registry (PCCR); standardize clinical management recommendations and the delivery of screening services within the health system.

Figure 2 on the left hand side of this page describes the essential building blocks of an organized screening program. Currently, the CSI program has established all but one component of an organized screening program.



Seven out of ten women in Newfoundland and Labrador have had routine screening from 2010-2012.

Elements that Support the Building of a Comprehensive Cervical Screening Program

A comprehensive cervical screening model requires the building of infrastructure to support health system standardization and program delivery. Table 1 below illustrates the current CSI program infrastructure using the cancer care continuum, which is supported in the Provincial Cancer Control Strategy.³

TABLE 1: Cervical Cancer Prevention and Screening

PRIMARY PREVENTION	SECONDARY PREVENTION	EARLY DETECTION	MANAGEMENT	DISEASE DETECTION	TREATMENT	PALLIATION
HPV Vaccination	Pap testing with LBC	Clinical management for screening diagnosis	Provincial colposcopy project	Direct contact to women with no documented follow up of abnormalities	Physician reporting follow-up care	Collaboration with Provincial cancer care program
Regional HPV vaccination data compiled into CRMS	HPV triage for ASCUS for women over 30 yrs.	Integration of follow up recommendation in lab report	PCCR abnormal cytology follow up protocol	SOGC management protocols	Colposcopy performance indicators	Invasive Disease review
Build fields in PCCR to incorporate vaccine records	Integration of new technologies for HPV genotyping	Specimen adequacy rates	Wait time data for colposcopy	Environmental scan of all colposcopy sites	Standardized colposcopy reporting form	Monitoring of mortality rates
Establish provincial HPV monitoring and surveillance framework	Monitoring of screening diagnosis	Colposcopy referral form	High quality data management for PCCR	Monitoring of incidence of in situ disease	Consultation process for gynecologists	
Proposed HPV genotyping protocol	Client registry linkage	Laboratory Quality assurance practices	Monitoring of program performance provincially and nationally	Cytology histology correlation rates monitored	Accessibility of colposcopy services	
Heightened awareness and education of target population	Invitation system	Privacy Impact Assessment	Provincial benchmark reporting for wait times		Electronic health records project for colposcopy	
HPV post-vaccine study	Electronic transfer of lab reports	Women's Wellness Clinic Guidelines	Data Linkages Plan		Potential access to PCCR for clinicians	
	MD CME training module	70+ Open Door Pap Clinics Year round				

*Items that are presented in bold font represent significant forward steps in the organization of the CSI program.

LEGEND:

ASCUS - Atypical Squamous Cells of Undertermined Significance
 HPV - Human Papillomavirus
 PCCR - Provincial Cervical Cytology Registry
 MD CME - Physician Continuing Medical Education

LBC - Liquid Based Cytology
 SOGC - Society of Obstetrics and Gynecologists of Canada
 CRMS - Client Referral Management System



For women who have had an abnormal Pap test since 2006, a new reminder system has notified their health care provider that they are overdue for a return visit.

The Commitment to Quality

The CSI program is committed to ensuring the best outcomes for the women of NL. This commitment includes program management and coordination across four health regions. The program analyzes performance indicators that include participation rates, specimen adequacy, screening test results, cytology turn around time, and wait time to colposcopy follow-up rates.

Since the introduction of Liquid Based Cytology (LBC) in 2008, the provincial rate of unsatisfactory specimens has ranged from 0.2% to 0.8%, which is well within the national average. In 2012, approximately 8% of all Pap tests in NL were abnormal. The use of Bethesda terms for cytology interpretation for all labs allows for subsequent standardization and inclusion of recommended follow-up protocols for women with abnormal Pap reports.

Illustrated in Table 2 is the breakdown of the 2012 abnormal Pap reports

Table 2: Percentage of Abnormal Pap test for 2012

ABNORMAL PAP TEST (2012)			
ASCUS/LSIL	AGC	ASC-H	HSIL
7.7%	0.3%	0.3%	0.5%

ASCUS - Atypical Squamous Cells of Undertermined Significance
LSIL - Low grade squamous intraepithelial lesion
AGC - Atypical Glandular Cells

ASC-H - Atypical squamous cells – cannot exclude HSIL
HSIL - High grade squamous intraepithelial lesion

Partnership and coordination of laboratory services are also key elements in ensuring high quality assurance. The CSI program is pleased that all cytology laboratories in NL participate in the internationally recognized College of American Pathologists (CAP) proficiency program. In addition, laboratory practice is accredited through the Ontario Laboratory Accreditation (OLA). These processes provide a solid foundation for quality assurance through all aspects of the screening program.

Monitoring Program Performance for Cervical Cancer Screening in Canada

The goal of the Pan-Canadian Cervical Screening Initiative is to decrease cervical cancer incidence and mortality through the early detection and treatment of pre-cancerous lesions and early stage cervical cancer. To accomplish this there are measures of screening program performance that are monitored at a national level; these are illustrated in The Pan Canadian report – *Cervical Cancer Screening in Canada Monitoring Program Performance 2006-2008*, which was published in November of 2011.⁹

The updated 2009-2011 national monitoring report is due for publication in the Fall of 2013.

Correspondence

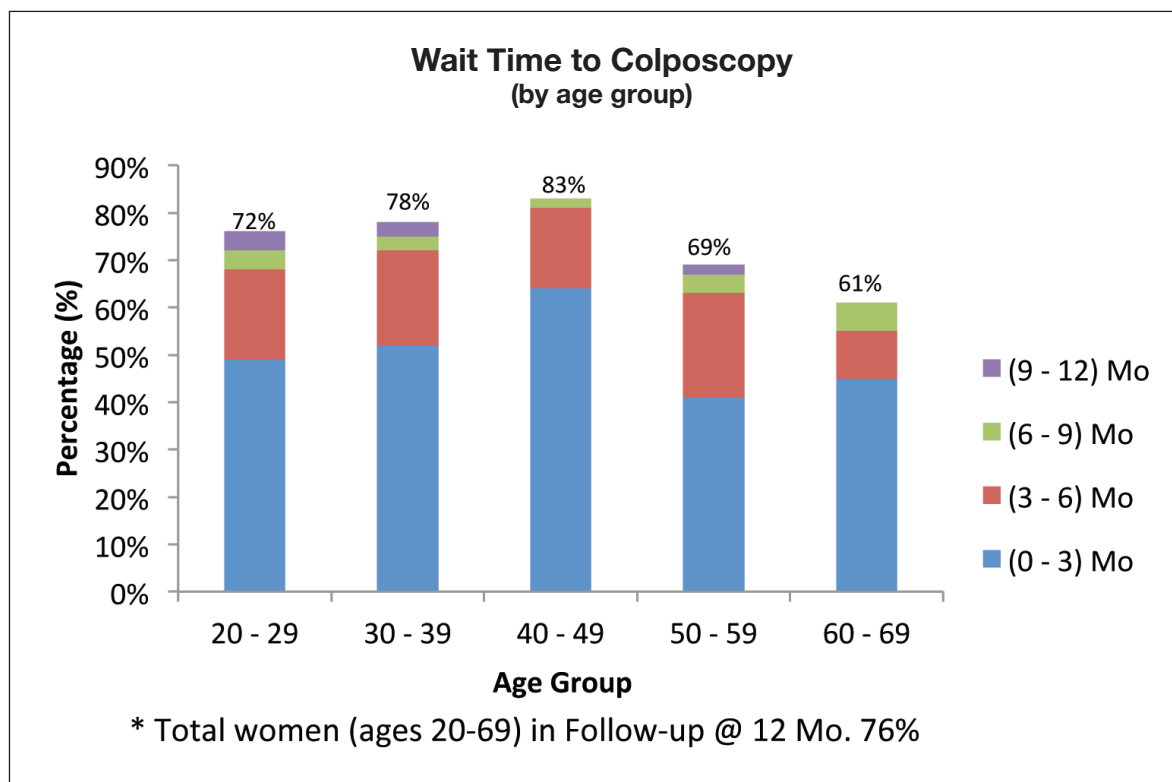
The partnership with the Provincial Cervical Cytology Registry (PCCR) is also a critical component of the program. The PCCR collates all reports related to cervical screening in a central computer system. The PCCR identifies women with an abnormal test or who are overdue for follow-up. When the status of the follow-up cannot be determined through the health care provider, letters are sent directly to the women themselves, suggesting they return to their regular health care provider for care. This is a significant step forward for the program and will enable women to gain the knowledge to make informed decisions about their health.

The PCCR registry also supports health care providers by identifying the women in their practice that are overdue for routine screening. Having the ability to identify and link women who need follow-up or who are overdue for screening to their health care provider is crucial to quality assurance and is a core component of an organized screening program.



Since the Fall of 2012, women who could not be located by the reminder system have been sent a registered letter. Through this method, the program assures women are well-informed of their Pap test status.

Figure 3 illustrates the national performance indicator wait time for colposcopy follow-up. This indicator enables the CSI program to monitor and evaluate the wait time for women with high grade Pap reports who have documented colposcopy visits within 12 months.



Successful Recruitment of the Target Population

A key component of having an organized screening program is that it empowers women to make informed personal decisions about screening. *The goal of successful recruitment is to increase participation in Pap testing. To*



achieve this, education and promotion strategies must be developed that engage the health care educators, health care providers and the women themselves. A successful campaign to increase Pap screening requires a multi-pronged approach that is based on building and strengthening the community capacity to foster meaningful exchange of knowledge.⁶

Partnerships with family physicians are critical links to enhance screening for eligible women. Pictured here are Dr. Regina Becker and Regional CSI Coordinator, Susan White. Dr. Becker is one of 117 health care providers recognized in 2012 for their significant contribution to screening participation rates.



As of 2012, 87% of women, ages 20-69 years, have had at least 1 Pap test in the last 6 years.

Nurses, nurse practitioners, regional nurses, family physicians, gynecologists and organizations such as NL Planned Parenthood are all engaged in promoting timely and accessible Pap testing. The CSI Program acknowledges the dedication and importance of health care providers (HCP) in the provision of Pap testing services. Each year the HCPs who perform more than 200 Pap tests annually are recognized, and the top screeners in each health region are given special awards during partnered events with many of the Women's Centers on International Women's day. Pictured here is Carla Gillam, a Nurse Examiner with Western Health,



Cervical Screening Promotion Event in partnership with Keyin College and The Women In Successful Employment during Pap Test Awareness Week.

Each year specific campaigns are held to raise awareness for cervical screening and to engage women and community partners to get the word out and encourage screening. Pap Test Awareness Week has been coordinated during the last week of October each year, and paired with major promotional campaigns. The CSI program encourages innovative approaches including broad multimedia strategies and non-traditional community-based interventions. Oftentimes, community partners will provide opportunities to reach out to seldom and never screened women through community bingos, women church groups and beauty salons. The responses to these campaigns have been extremely favorable.

For example, partnering with the Canadian Cancer Society on the Daffodil Campaign has provided the CSI program with the opportunity to deliver key messages on flower bundles. On one of the feedback forms, a lady expressed her gratitude stating that, "The campaign reminded me to get screened as it was some time since my last Pap test."

The impact of site specific planning

One of the great successes of the program to date is the result of community-based site specific planning, which is a critical initiative to increase screening uptake in under screened areas. Community-based site specific planning uses unique outreach methods that include and engage women and community members in the planning process and activities. The success evaluated by measuring both screening uptake and screening participation rates in the community before and after the intervention. Successful plans have been put in place in many rural communities across the province.

In one of the locations in the Eastern region, the team identified under screened women through a collaboration with the local clinic. Education and promotion activities targeted 100% of these women, and in fact 97% attended special hosted Pap test clinics.



Over 150 nurses in NL perform Pap testing as part of their practice.

The Role of Primary Prevention

The introduction of the Human Papilloma Virus (HPV) vaccine has provided a unique opportunity for cervical cancer prevention. In 2007, the Government of Newfoundland and Labrador approved the initiation of the HPV vaccine to all Grade 6 girls in the province, with a catch-up program for all Grade 9 girls.

The exemplary HPV vaccine coverage places NL in the unique position to have a well vaccinated group of women eligible for screening in 2014. The CSI program is coordinating a framework for monitoring and evaluating vaccine effectiveness, specifically, the impact of vaccination on cervical dysplasia and cervical cancer incidence. This evidence should support decisions, such as lengthening screening intervals for vaccinated women.

The HPV monitoring framework also proposes to link the regional vaccine records with the Provincial Cervical Cytology Registry (PCCR) to allow for improved disease surveillance and individualized recommendations for follow-up care. The linkage will also place the program in a position to support further research activities that can inform provincial policy direction.

Partnerships between the CSI program, Department of Health and Community Services, Provincial Public Health Lab, Regional Health Authorities and multi-disciplinary professionals support the continuation of HPV Monitoring and Surveillance Strategies.

Challenges

- In partnership with the PCCR, the program will establish a population based recall system. This system will invite women who are under screened (> than 3 years) and never screened (> than 10 years) to be screened, thus targeting women who are at a higher risk of developing cervical cancer.
- For every woman with a significantly abnormal Pap test result, further examination by a gynecologist is required. Women who are referred to colposcopy services need to have timely and accessible care. A current project is underway to assess the delivery of colposcopy services and identify strengths and opportunities for improvement.
- Correspondence directly with women eligible for screening is an essential element of organized screening.¹⁰ This would include invitation to screen, notification of results, and reminders for routine screening. In order for this to occur, the PCCR needs to achieve registry designation to initiate any direct correspondence (i.e. registered letter) with women.
- The link between HPV prevention and cervical screening must be monitored through the HPV surveillance framework. To do this, the health record of vaccination and the Pap screening data must be linked to the PCCR. Therefore, current privacy legislation requirements must be addressed.

Conclusion

The CSI program aims to ensure high screening participation rates, thereby reducing the burden of disease and producing more favorable outcomes for women. Key partnerships, such as laboratory services, the PCCR and front line health care providers, play a significant role in the efforts to control cervical cancer. The impact of an organized cervical screening program is a significant improvement in health services for the women of NL.



Linking HPV vaccination with cervical screening
will inform policy decisions on screening
start age for younger women.

CSI Program Milestones

2003

- Provincial Program launched with partners in Western and Central Regions.
- Provincial performance indicators framework developed .

2005

- Expansion to include Eastern Rural NL.
- Template for Community Profile Tools Implemented.

2007

- Expansion to include Labrador Grenfell and Eastern Avalon.
- Publically funded HPV vaccination program initiated.

2008

- Upgrade initiated to the Provincial Cervical Cytology Registry (PCCR).
- Introduction of HPV Triage Reflex testing as standard of care.
- Technology change from conventional cytology to the Liquid Based Cytology (LBC).

2010

- Expert working group established to revise Clinical Management Guidelines.
- New Provincial Cervical Cytology Registry goes live with electronic transfer of data from regional labs.

2011

- Follow-up System initiated with letters to physicians/HCP for women with abnormal cytology.
- Invitation Lists generated to Health Care Providers for women in their practice who are overdue for routine screening.

2012

- Letters directly to women who are overdue following an abnormal Pap test.

References

1. Franco EL, Duarte-Franco E, Ferenczy A. Cervical cancer: epidemiology, prevention and the role of human papilloma virus infection. CMAJ 2001;164:1017-25.
2. Walton RJ. Cervical cancer screening programs (DNH&W report). CMAJ 1976;114:1003-12.
3. Government of Newfoundland and Labrador (2010). Gaining Ground: A Provincial Cancer Control Policy Framework for Newfoundland and Labrador.
4. Canadian Cancer Society's Steering Committee: Canadian Cancer Statistics. Toronto, ON: Canadian Cancer Society; 2012.
5. Grundfeld E. Cervical cancer: screening hard-to-reach groups. Canadian Medical Association. 1997; 157(5). 543 – 545
6. Black ME, Yamada J, Mann V. A systematic literature review of the effectiveness of community-based strategies to increase cervical screening. Canadian Journal of Public Health 2002; 93(5):386-93.
7. Health Canada (2002). Cervical Cancer Screening in Canada: 1998 Surveillance Report.
8. The Pan Canadian report – Cervical Cancer Screening in Canada Monitoring Program Performance 2006-2008. [On-line] Available http://www.partnershipagainstcancer.ca/wp-content/uploads/CPAC_Cervical_CS_Report_E_WEB_Final.pdf
9. Report from the screening performance indicators working group, cervical cancer prevention and control network (CCPCN). Performance Monitoring for Cervical Cancer Screening Programs in Canada. 2009
10. PCCSI Network (2013). PCCSI National Guidance Document on Correspondence for Cervical Cancer Screening Programs.



Cervical Screening Initiatives Program

1-866-643-8719

A provincial program coordinated by Western Health