The goal of CervixCheck is to decrease cervical cancer incidence and mortality through the development and management of comprehensive and equitable cervical cancer screening for Manitoba women. The program operates a registry of all Pap test, colposcopy and biopsy results, facilitates awareness and education about the importance of Pap tests, works with health care professionals to increase screening access, and supports health care provider, laboratory, and colposcopy quality assurance.

CervixCheck recommends that sexually active women have a Pap test every 3 years starting at age 21.

This report illustrates program activities and screening outcomes from January 1st, 2009 to December 31st, 2011. All figures are for women 20 – 69 years of age.

**How Many Women Were Screened?**

- 67.3% of women had at least one Pap test between January 1st, 2009 and December 31st, 2011 (Figure 1).
- Participation was highest for women 25 – 29 years of age and declined with age (Figure 2).
- The percentage of eligible women re-screened within three years after a negative Pap test was 80.5% for 2007, 80.9% for 2008 and 77.6% for 2009.

**Percentage of women who had at least one Pap test by Regional Health Authority from January 2009 to December 2011 (n = 254,270).**

![Graph showing percentage of women by Regional Health Authority.](chart1)

*Regional Health Authority: Brandon, Eastman, Carberry, North Eastern, Interlake, Winnipeg, Central, Assiniboine, Brandon, Portage, Westman, Winnipeg, Interlake, Southern, Plains, Prairie, Northern, Manitoba.*

**Percentage of women who had at least one Pap test by age group from January 2009 to December 2011.**

![Graph showing percentage of women by age group.](chart2)

*NOTE: Population was calculated using Manitoba Health population data at the mid-point of the time frame; corrected for hysterectomy and invasive cervical cancer.*
What did CervixCheck do to increase participation rates?

- In 2010, CervixCheck evaluated the impact of sending invitation letters to unscreened Manitoba women. The letter included information about cervical screening and provided locations where a woman could access Pap tests. Although the increase in participation was small (3%), 600 additional unscreened women had a Pap test. Overall, women who were sent a letter were twice as likely to have a Pap test as women who were not sent a letter.

- CervixCheck partnered with clinics, nursing stations and health centers across the province to offer walk-in, no appointment Pap test services during the program’s annual campaign, Manitoba Pap Test Week. The number of clinics participating in Pap Week increased from 7 in 2003 to 86 in 2010 (Table 1). 61.4% of women who attended had not had a Pap test in at least 2 years.

- Clinics offering improved access to Pap test services throughout the year has increased from 29 in 2009 to 89 in 2011 representing 65 communities.

**TABLE 1**

Number of clinics who participated and women who attended Manitoba Pap Test Week and the percentage of women who were overdue for a Pap test

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER OF CLINICS WHO PARTICIPATED</th>
<th>NUMBER OF WOMEN WHO ATTENDED</th>
<th>PERCENT OF WOMEN WHO WERE OVERDUE* FOR A PAP TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>7</td>
<td>117</td>
<td>75%</td>
</tr>
<tr>
<td>2004</td>
<td>17</td>
<td>505</td>
<td>65%</td>
</tr>
<tr>
<td>2005</td>
<td>16</td>
<td>503</td>
<td>58%</td>
</tr>
<tr>
<td>2006</td>
<td>78</td>
<td>1578</td>
<td>66%</td>
</tr>
<tr>
<td>2007</td>
<td>104</td>
<td>1425</td>
<td>58%</td>
</tr>
<tr>
<td>2008</td>
<td>96</td>
<td>1700</td>
<td>54%</td>
</tr>
<tr>
<td>2009</td>
<td>76</td>
<td>1471</td>
<td>52%</td>
</tr>
<tr>
<td>2010</td>
<td>86</td>
<td>1750</td>
<td>63%</td>
</tr>
</tbody>
</table>

*Women who were overdue had not had a Pap test in at least 2 years.

**FIGURE 3**

Percentage of women who had an abnormal Pap test result by diagnostic category from January 2009 to December 2011 (n = 19,489).

- The percentage of women who had an unsatisfactory Pap test was 3.3%.

- 92.7% of women had a negative Pap test, 5.5% had a low-grade Pap test, (ASC-US or LSIL) and 1.9% had a high-grade (AGC, ASC-H, or HSIL) or more severe Pap test (Figure 3).

**NOTE:** ASC-US (Atypical squamous cells of undetermined significance), LSIL (Low-grade squamous intraepithelial lesion); AGC (Atypical glandular cells); ASC-H (Atypical squamous cells, cannot rule out high-grade); HSIL+ (High-grade squamous intraepithelial lesion or more severe).
How long did it take?

- The median number of days from the date the Pap test was performed to the date the Pap test was reported by the laboratory was 12.7 days (n = 569,686).
- For women who had a high-grade (ASC-H/HSIL) or more severe Pap test result, 84.9% had colposcopy within 12 months. 9.7% of women had not had colposcopy within two years of their high-grade Pap test result.
- 96% of women who had a high-grade (ASC-H/HSIL) or more severe Pap test result and a colposcopy within 12 months had a biopsy.

What were the outcomes?

- The pre-cancer detection rate was 10.0 per 1,000 women screened, (n = 3,617) (Figure 4).
- The invasive cervical cancer incidence rate from 2007 to 2011 ranged from 1.4 per 100,000 for women 20 to 24 years of age to 16.7 per 100,000 for women 40 to 44 years of age (Figure 5).
- The incidence rate was 4.4 per 100,000 for adenocarcinoma and 6.5 per 100,000 for squamous carcinoma (Figure 5).
- 54% of invasive cervical cancers were diagnosed at Stage 1 (figure 6).
- 42.3% of women diagnosed with invasive cervical cancer had a Pap test 6 months to 3 years before diagnosis, 7.2% of women had a Pap test 3 to 5 years before diagnosis, and 50.5% of women had a Pap test greater than 5 years before diagnosis or had no record of ever having a Pap test (Figure 7).

How accurate was the Pap test?

- The percentage of high-grade Pap tests (ASC-H and HSIL) that agreed with the subsequent biopsy result was 57.8% (n = 5,314).

(Figure 4)
Pre-cancer detection rate per 1,000 women by age group from January 2009 to December 2011 (n = 3617).

(Figure 5)
Invasive cervical cancer incidence per 100,000 women from January 2007 to December 2011 (n = 246).
What were the program volumes?

- 569,686 Pap tests were registered in the CervixCheck registry.
- 36,584 colposcopy reports were received from colposcopists.
- CervixCheck notifies health care providers and women when the appropriate management for abnormal cytology has not been completed. 9,980 letters were sent to health care providers and 7,170 letters were sent to women.
- 31,452 invitation letters were sent to unscreened women.

(FIGURE 6)
Percentage of invasive cervical cancers diagnosed at stage 1 by age group from January 2007 to December 2011 (n = 211).

(FIGURE 7)
Percentage of women diagnosed with invasive cervical cancer by time since last Pap test from January 2009 to December 2011 (n = 120).

(FIGURE 8)
CervixCheck program volumes from January 2009 to December 2011 (all ages)