

# State of Wyoming



## Department of Health

### Cervical Cancer in Wyoming: Issue Brief

Thomas O. Forslund, Director

December 2011

The Issue Brief of Cervical Cancer in Wyoming is published by the  
Public Health Division  
Wendy E. Braund, MD, MPH, MEd, State Health Officer and Senior Administrator

Additional information and copies may be obtained from:  
Carol E. Peterson, MS, RN  
Wyoming Breast and Cervical Cancer Early Detection Program  
Wyoming Department of Health  
6101 Yellowstone Road, Suite 510  
Cheyenne, WY 82002  
Telephone: (307) 777-6006  
Facsimile: (307) 777-3765  
E-mail: [carol.peterson@wyo.gov](mailto:carol.peterson@wyo.gov)

This document is available in alternative format upon request.

This publication was supported, in part, by Cooperative Agreement #5U5DP000801-05 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

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The Wyoming Breast and Cervical Cancer Early Detection Program (WBCCEDP) is federally funded by the Centers for Disease Control and Prevention. In 2011, the program celebrated 15 years serving as a significant player in the early detection of breast and cervical cancer in Wyoming. Since the program's inception, almost 6,000 women have been screened for breast or cervical cancer and of those women, over 700 have been diagnosed with breast or cervical cancer or high-grade cervical pre-cancer. WBCCEDP received a 2009 Award of Excellence from CDC for outstanding program performance.

*Celebrating 15 Years*



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## Introduction

According to the American Cancer Society, approximately 12,000 new cases of invasive cervical cancer are diagnosed in the United States annually and approximately 4,210 women die from the disease each year (based on 2010 data). In 2009, 24 Wyoming women were diagnosed with cervical cancer and eight women died of the disease.

Cervical cancer is caused by a virus called human papilloma virus or HPV. HPV infection is very common. About eight out of ten women will get HPV by the time they are 50 years old. Most HPV infections clear up on their own. The body's immune system fights off the virus without the infected person ever being aware that she has the infection.

There are more than 100 different kinds of HPV. Some types of HPV cause the warts that are common on hands and feet. Some types of HPV cause genital warts. Some types invade the cervix. The cervical HPV types called "high risk" are the ones that can cause cervical cancer. The types of HPV that cause cervical cancer are spread through genital contact. This means touching skin in the genital area, not only intercourse.

Cancer of the cervix forms slowly. First, some normal cells change to pre-cancerous ones. Eventually, some pre-cancerous cells may grow into cervical cancer. These changes from normal cells, to pre-cancerous cells, to cancerous cells can take up to ten years.

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## Introduction - *continued*

A Pap test looks for abnormal changes in the cells of the cervix. If cell changes are found early and treated, cervical cancer can be prevented. If the changes are not treated, they can grow and become cancer. It is important to note that Pap tests do not screen for other cancers or for sexually transmitted infections.

## Screening

According to the Wyoming 2010 Behavioral Risk Factor Surveillance System, 78.3% of Wyoming women ages 18 and older (with an intact cervix) reported having a Pap test in the past three years. This rate shows no improvement since tracking began in Wyoming in 1995 when the rate was 80.9%. The state screening rate is well below the U.S. median of 81.2% in 2010. Wyoming currently ranks 45th in the nation for Pap screening rates. Approximately 34,000 Wyoming women with an intact cervix are not receiving regular Pap tests (meaning at least once every three years). Of Wyoming women ages 18 and older, 7.7% report they have never had a Pap test. This represents approximately 11,000 women. Of Wyoming women

ages 21 and older with an intact cervix, 80.6% reported having received a Pap test in the past three years. This measures the new recommendation from the U.S. Preventive Services Task Force and eliminates data from women ages 18-20.

Listed below are percentage rates for women aged 18 and older by county who had a Pap test in the past three years. (*BRFSS: combined data 2005-2009*)

Albany	79.8%	Natrona	78.5%
Big Horn	76.4%	Niobrara	77.2%
Campbell	83.4%	Park	74.8%
Carbon	63.8%	Platte	77.2%
Converse	89.0%	Sheridan	75.9%
Crook	84.1%	Sublette	78.9%
Fremont	75.3%	Sweetwater	76.3%
Goshen	80.2%	Teton	86.6%
Hot Springs	77.2%	Uinta	73.4%
Johnson	85.2%	Washakie	76.3%
Laramie	81.7%	Weston	79.7%
Lincoln	80.1%	State average	76.8%
<i>U.S. Average = 82.9%</i>			

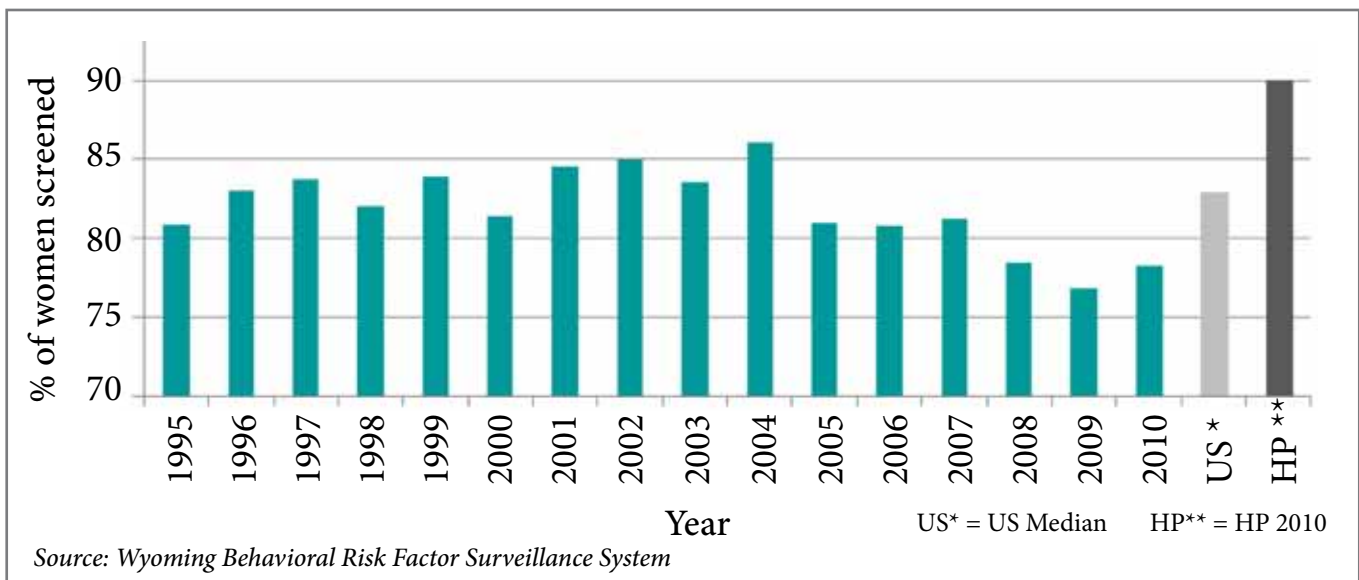


Figure 1: Wyoming Cervical Cancer Screening Rates: women 18 and older receiving a Pap test in past three years



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According to 2010 BRFSS data, Pap screening rates in Wyoming are *lowest* among:

- Women with less than a high school education (52.1%)
- Women with no medical checkup in last two years (53.6%)
- Women ages 18-24 (56.7%)
- Women with no regular doctor/no medical home (61.8%)
- Uninsured women (63.6%)

By comparison, Pap screening rates are *highest* among:

- College graduates (91%)
- Women ages 25-34 (88.1%)
- Women with a medical checkup in last two years (84%)
- Women with a regular doctor/medical home (81.0%)
- Insured women (80.2%)



## Wyoming Cervical Cancer Incidence and Mortality

In 2009, 24 Wyoming women were diagnosed with cervical cancer and eight women died of the disease.

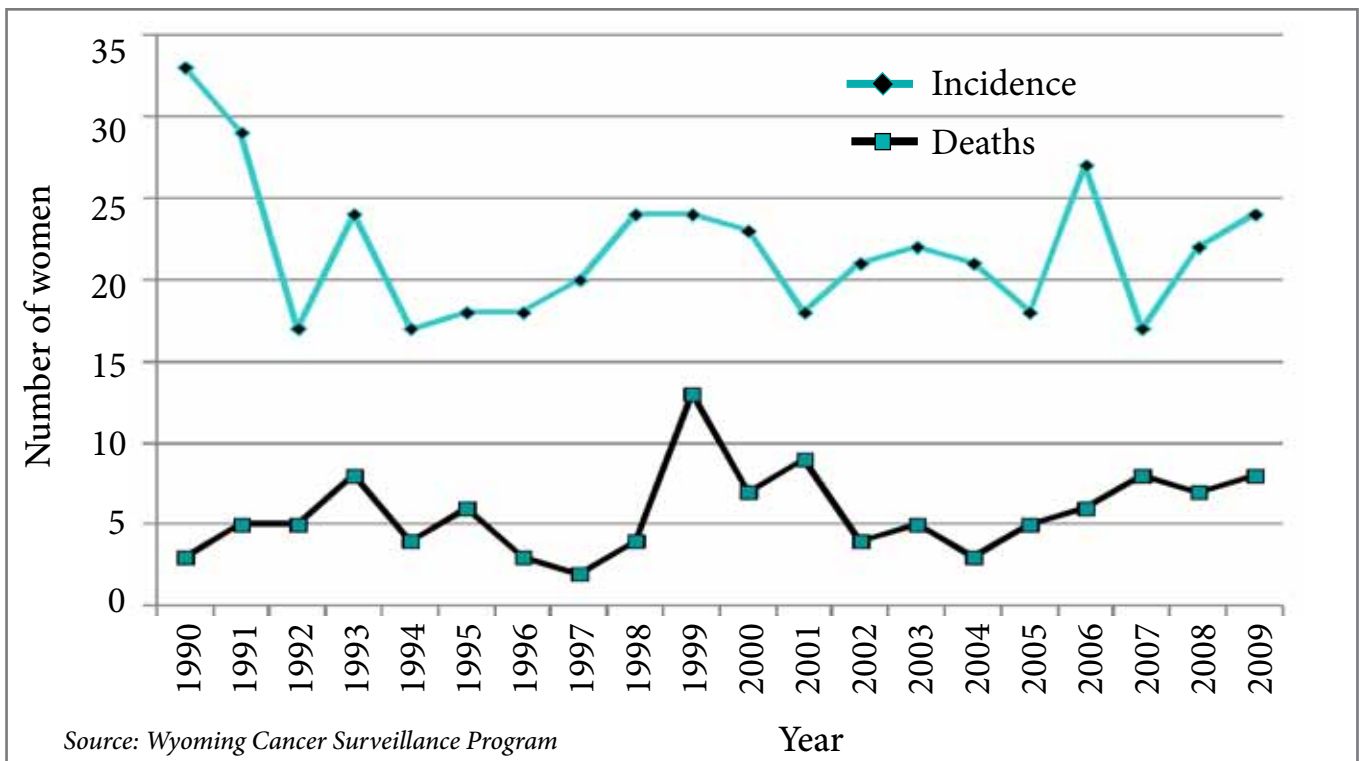


Figure 2: Wyoming Cervical Cancer Incidence and Mortality: all ages and all races

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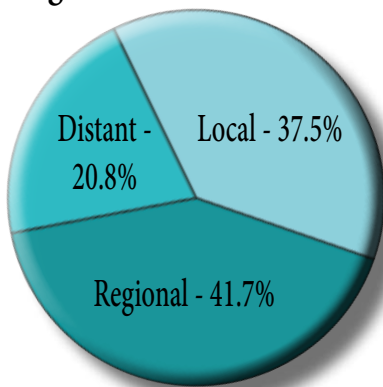
## 2009 Wyoming Cervical Cancer Cases, Deaths, Incidence Rate and Mortality Rate

Number cases	24
Number of cancer deaths	8
WY incidence rate	8.62*
US incidence rate (2008 data)	7.88*
WY mortality rate	2.99*
US mortality rate (2008 data)	2.17*

\*Rates are per 100,000

Source: Wyoming Cancer Surveillance Program

## 2009 Wyoming Cervical Cancer Cases Diagnosed by Stage



Source: Wyoming Cancer Surveillance Program

## Wyoming Cervical Cancer Survival Rates

Relative survival is a measure representing cancer survival in the absence of other causes of death. It is defined as the ratio of the proportion of observed survivors in a group of cancer patients to the proportion of expected survivors in a comparable set of cancer-free individuals.

## Wyoming Five-Year Survival Rates for Cervical Cancer: 2001-2009

Stage	Survival Rate: 60 months
Local	98.0%
Regional	62.8%
Distant	17.3%

Source: Wyoming Cancer Surveillance Program

## Risk Factors

Cervical cancer risk factors include:

- Not having at least one Pap test every three years
- Intercourse at an early age
- Smoking
- Multiple sexual partners (self or partner)
- Having HPV or ever having a sexually transmitted disease
- Compromised immune system or having HIV.



## Symptoms

Symptoms of cervical cancer include: unusual discharge from the vagina; blood spots or light bleeding at times when a woman is not having her period; bleeding after menopause; and bleeding or pain during sex. There are no symptoms of cervical pre-cancers and rarely any symptoms of early cervical cancer, so it is very important for women to have regular Pap tests.

## Screening Recommendations

### Wyoming Screening Recommendations:

Beginning at age 21, women should initiate Pap test screening and should continue screening every two to three years or as recommended by their healthcare provider.



- Note: Until this year, the recommendation was 18 and older. Omitting the 18-20 year olds data should improve screening rates since this age group has the lowest percentage of women receiving Pap tests.

## HPV Vaccines



The Food and Drug Administration (FDA) has approved two vaccines (Gardasil and Cervarix) that are highly effective in preventing two high-risk HPV

types that cause about 70% of all cervical cancers. Gardasil also prevents infection with HPV types that cause about 90% of genital warts. Both vaccines have been approved for use in females ages nine to 26 and are given in three doses over a six-month period. The Advisory Committee on Immunization Practices (ACIP) recommends the vaccination be given routinely at ages 11 or 12, and the series may be started for girls as early as nine years of age. Girls and women ages 13 to 26 who have not been vaccinated already, or who did not complete the three-dose series, can also be vaccinated against HPV. If a woman reaches the age of 26 before completing the three-dose series, ACIP recommendations say that she can still receive the remaining doses.


For males, ACIP allows vaccination with Gardasil between the ages of nine and 26 to reduce the likelihood of genital warts. ACIP recommends that young women who have abnormal Pap test results, which may indicate HPV infection, should still receive HPV vaccination if they are in the appropriate age group because the vaccine may protect them against high-risk HPV types that they have not yet acquired. Because the vaccines do not protect against all HPV infections that cause cervical cancer, it is important for vaccinated women to continue to receive routine Pap tests.

**For information about the availability of HPV vaccine, contact your county Public Health Office.**

## Wyoming Services for Low-Income Women


The following resources are available to help women find low- or no-cost Pap tests.

### The Wyoming Breast and Cervical Cancer Early Detection Program (WBCCEDP)

 Phone: 1-800-264-1296


 Website: [www.health.wyo.gov/phsd/bccedp](http://www.health.wyo.gov/phsd/bccedp)

### The Caring for Women Program

 Phone: 1-888-556-8074


### Community Health Centers


Casper, Cheyenne, Riverton, Dubois

 Find information at: [www.wypca.org/](http://www.wypca.org/)


### Family Planning

Sites throughout the state


 Contact information at: [www.wyhc.org/](http://www.wyhc.org/)

 Phone: 307-632-3640

### UW Family Practice Residency (Cheyenne)

 Phone: 307-632-2434

### UW Family Practice Residency (Casper)

 Phone: 307-234-6161

#### Sources:

- 2010 American Cancer Society: Facts and Figures
- 2010 Behavioral Risk Factor Surveillance System, Wyoming Department of Health
- 2010 Wyoming Breast and Cervical Cancer Early Detection Program internal data
- 2009 cervical cancer data from the Wyoming Cancer Surveillance Program (a statewide population-based cancer registry)
- NCI Human Papillomavirus (HPV) Vaccines Fact Sheet - September 2011



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