# **State of Wyoming**



# **Department of Health**

## **Colorectal Cancer in Wyoming: Issue Brief**

Thomas O. Forslund, Director

March 2012

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

> Additional information and copies may be obtained from: Carol E. Peterson, MS, RN Colorectal Cancer Screening Program Wyoming Department of Health 6101 Yellowstone Road, Suite 510 Cheyenne, WY 82002 Telephone: (307) 777-6006 Facsimile: (307) 777-1950 E-mail: carol.peterson@wyo.gov

This document is available in alternative format upon request.

The Wyoming Colorectal Cancer Atting of the gy cars Screening Program (WCCSP) is state-funded through tobacco settlement funds appropriated by the Wyoming Legislature. The program began on July 1, 2007. Since its inception, the WCCSP has received outstanding support from the Wyoming Breast and Cervical Cancer Early Detection Program, the Wyoming Comprehensive Cancer Control Consortium



and the Wyoming Cancer Resource Services regional projects. In 2012, the program is celebrating five years of serving as a significant player in the early detection of colorectal cancer in Wyoming. As of March 1, 2012, over 2,000 Wyoming residents had received a colonoscopy through the program.



Wyoming Cancer SURVEILLANCE PROGRAM

#### Introduction

Colorectal cancer is the second leading cause of cancer death in Wyoming, second only to lung cancer and yet, it is very preventable with screening. A recent study published in the New England Journal of *Medicine* found that removing precancerous polyps during colonoscopies reduced the risk of dying from colorectal cancer by 53%.

According to the Wyoming Behavioral Risk Factor Surveillance System (BRFSS), colorectal cancer screening rates are increasing in Wyoming. In 2006, 52.6% of Wyoming adults aged 50 and older reported they had ever had a colonoscopy and/or sigmoidoscopy. By 2010 the rate had increased to 59.3%. In 2009, 234 new cases of colorectal cancer were diagnosed in Wyoming. Of the 234 new cases, 123 were males and 111 were females. There were 76 deaths (43 males, 33 females) due to colorectal cancer in 2009.

The Wyoming Cancer Control Act, passed in 2007, legislated a comprehensive cancer control plan for Wyoming. As a part of this act, the Wyoming Colorectal Cancer Screening Program (WCCSP) was established. Barriers to colorectal screening include uninsurance and high insurance deductibles and/or co-payments. The WCCSP helps eliminate the cost barriers to screening and provides free colonoscopies to eligible Wyoming residents. The American Cancer Society estimates that there will be 240 new colorectal cancer cases and 90 deaths due to colorectal cancer in Wyoming in 2012.

### **Colorectal Cancer Rates**

Despite strong evidence supporting the effectiveness of colorectal screening, only about half the country's population aged 50 and over are current for recommended screenings. According to the National Cancer Institute, colorectal cancer rates have been declining over the last 20 years among adults 50 years and older. During the same time frame, the incidence of colorectal cancer has been increasing among adults younger than 50 years old. Exact reasons for this increase are unknown, but may reflect trends in obesity and/or unfavorable dietary patterns in children and young adults. Since 1998, mortality rates overall have decreased 2.8% per year in men and 2.6% per year in women.

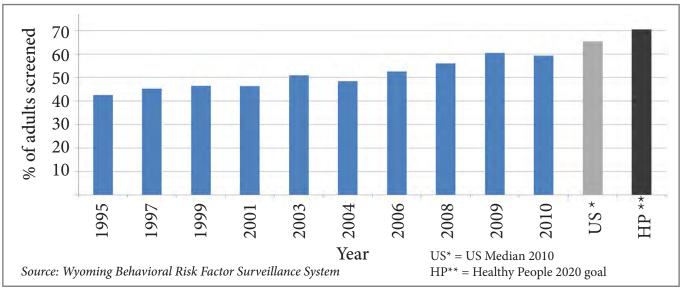
#### Screening

Early colorectal cancer often has no symptoms, which is why screening is so important. The screening process for colorectal cancer (sigmoidoscopy or colonoscopy) is very effective and can result in the identification and removal of polyps before they become cancerous as well as the detection of cancer that is at an early stage.

### Screening Rates by County

Listed below are percentage rates for adults aged 50 and older by county who have never had a sigmoidoscopy or colonoscopy. (*BRFSS - combined data 2005-2009, smallest two counties combined*)

Albany	33.7%	Lincoln	50.0%	
Big Horn	50.3%	Natrona	37.5%	
Campbell	44.6%	Park	35.8%	
Carbon	51.1%	Platte	41.1%	
Converse	41.9%	Sheridan	28.9%	
Crook	53.5%	Sublette	37.8%	
Fremont	46.5%	Sweetwater	47.6%	
Goshen	45.0%	Teton	33.8%	
Hot Springs/ Niobrara	49.6%	Uinta	50.4%	
		Washakie	47.8%	
Johnson	39.4%	Weston	43.4%	
Laramie	36.5%	State Average	39.5%	
U.S. Average = 37.8 (2008)				



#### Figure 1:

Wyoming Colorectal Cancer Screening Rates: adults 50 and older having ever received a colonoscopy or a sigmoidoscopy



### Wyoming Screening Rates by Groups

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

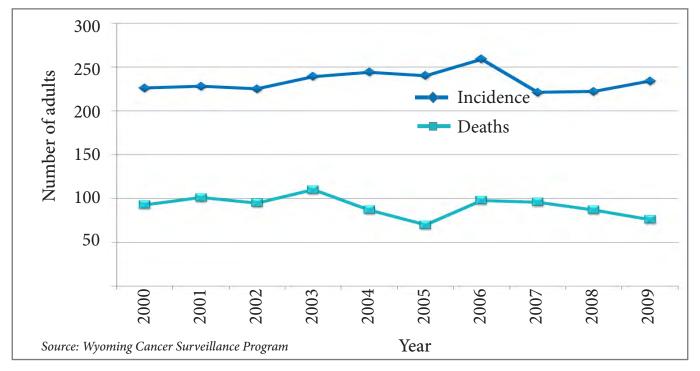
- Adults with no personal doctor or medical home (24.5%)
- Uninsured adults (29.2%)
- Adults with no medical check-up in past two years (30.2%)
- Adults with less than a high school education (33.8%)
- Smokers (35.5%)
- Adults ages 50-54 (36.0%)

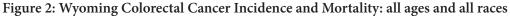
By comparison, colonoscopy screening rates are *highest* among:

- Adults ages 65-74 (62.3%)
- Adults with a medical check-up in past two years (57.5%)
- College graduates (56.5%)
- Adults with a personal doctor or medical home (56.0%)
- Non-smokers (54.6%)
- Insured adults (53.6%)



#### Wyoming Colorectal Cancer Incidence and Mortality







#### Wyoming Colorectal 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.

Listed below are the 2009 colorectal cancer survival rates in Wyoming.

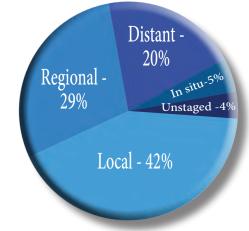
Length of time	Survival Rate
12 months	82.9%
24 months	74.4%
36 months	68.5%
48 months	64.4%
60 months	61.7%

Source: Wyoming Cancer Surveillance Program

Five-year survival rates vary depending on the stage of diagnosis. Listed below are the U.S. five-year relative survival rates for colorectal cancer (2001-2007).

Stage of Diagnosis	Survival Rate
Localized (confined to primary site)	90.1%
Regional (spread to regional lymph nodes)	69.2%
Distant (cancer has metastasized)	11.7%

#### 2009 Wyoming Colorectal Cancer by Stage



Source: Wyoming Cancer Surveillance Program

#### 2009 Colorectal Incidence and Mortality Rates

WY male incidence rate	46.4*
US male incidence rate	51.8*
WY female incidence rate	36.6*
US female incidence rate	38.5*
WY male mortality rate	15.5*
US male mortality rate	19.0*
WY female mortality rate	12.4*
US female mortality rate	13.4*

\*Rates are per 100,000

Source: Wyoming Cancer Surveillance Program

#### **Risk Factors**

The risk of colorectal cancer increases with age, with 91% of cases being diagnosed in individuals age 50 and older. Colorectal cancer risk is increased by certain inherited genetic mutations, a personal or family history of colorectal cancer and/or polyps or a personal history of chronic inflammatory bowel disease. Studies have also shown an association between diabetes and colorectal cancer.

There are several factors connected to the increased risk of colorectal cancer that can be impacted through personal lifestyle changes. These include:

- obesity
- physical inactivity
- a diet high in processed and red meat
- heavy alcohol consumption
- inadequate intake of fruits
- and vegetables
- smoking

Studies show that compared to healthy weight individuals, men and women who are overweight are more likely to develop colorectal cancer and die from the disease. According to the American Cancer Society, milk and calcium consumption may decrease the risk of colorectal cancer.



### **Screening Recommendations**

Colorectal cancer usually develops slowly over a period of ten to 15 years. Screening has the potential to prevent colorectal cancer because most colorectal cancers develop from polyps. Polyps are noncancerous growths in the colon and rectum. Certain kinds of polyps, called adenomatous polyps or adenomas are the most likely to become cancers, though fewer than ten percent of adenomas progress to cancer. Adenomas are common. An estimated one-third to one-half of adults will develop one or more adenomas in their lifetime. Removing polyps through a screening colonoscopy can prevent cancer from occurring. Additionally, being screened at the recommended frequency increases the likelihood that when cancer is present, it will be detected at an earlier stage when it is more likely to be cured with less extensive treatment and recovery occurring much faster.

#### Wyoming Screening Recommendations:

The Wyoming Cancer Control Plan recommends colorectal cancer screening beginning at age 50 with a colonoscopy every 10 years.



- Immunochemical testing should be done annually beginning at age 50.
- Rescreening more frequently than every 10 years may be recommended based on results of first colonoscopy.
- Individuals are encouraged to talk with their healthcare provider about screening before age 50 if they have a family history of colon cancer.
- African Americans should begin screening at age 45.

## WCCSP Eligibility Requirements

Eligibility criteria for a free colonoscopy through the Wyoming Colorectal Cancer Screening program include:

- 50 years and older and not eligible for the Federal Medicare program
- Younger than 50 if medical criteria are met
- Minimum age of 18
- Must be a Wyoming resident for at least one year prior to application
- Income at or below 250% of Federal Poverty Level
- Uninsured or underinsured for colorectal cancer screening

The WCCSP currently screens about 480 patients per year at an average cost of \$1,800 per procedure. The program has over 300 contracted healthcare providers statewide including physicians, hospital/surgical centers, pathologists, and anesthesiologists.



For more information, call 1-866-205-5292 or visit the program's website at www. health.wyo.gov/phsd/ccp.

Sources:

- 2011-2013 American Cancer Society: Colorectal Cancer Facts and Figures
- 2010 Behavioral Risk Factor Surveillance System, Wyoming Department of Health
- 2010 Wyoming Colorectal Cancer Screening Program internal data
- 2010 colorectal cancer data from the Wyoming Cancer Surveillance Program (a statewide population-based cancer registry)
- 1992-2007 Surveillance, Epidemiology, and End Results Program, National Cancer Institute
- New England Journal of Medicine 2012; 366:687-696, Feb. 23, 2012

Issue Brief

Colorectal Cancer in Wyoming:





6