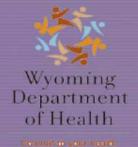
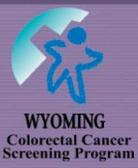




Cancer in Wyoming: Women



State of Wyoming Department of Health

Cancer in Wyoming Women Data Brief

The “Cancer in Wyoming Women” data brief is published by the
Public Health Division
Wendy E. Braund, MD, MPH, MEd, FACPM
State Health Officer and Senior Administrator, Public Health Division

Additional information and copies may be obtained from:
Elizabeth Mikesell
Wyoming Comprehensive Cancer Control Program
6101 Yellowstone Road, Suite 510
Cheyenne, Wyoming 82002
307- 777-8609
Fax: 307-777-2426
liz.mikesell@wyo.gov

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CANCER IN WYOMING WOMEN

INTRODUCTION

According to the National Cancer Institute, about one out of every three women in the United States will develop cancer at some point in their lives. The good news is that nearly two-thirds will survive for at least five years after diagnosis and many will be cured. Advances in screening and treatment over the last twenty to thirty years means that more people are surviving cancer than ever before. However, the American Cancer Society estimates that 2,700 Wyoming men and women will be diagnosed with cancer in 2013, and 950 men and women will die from cancer.

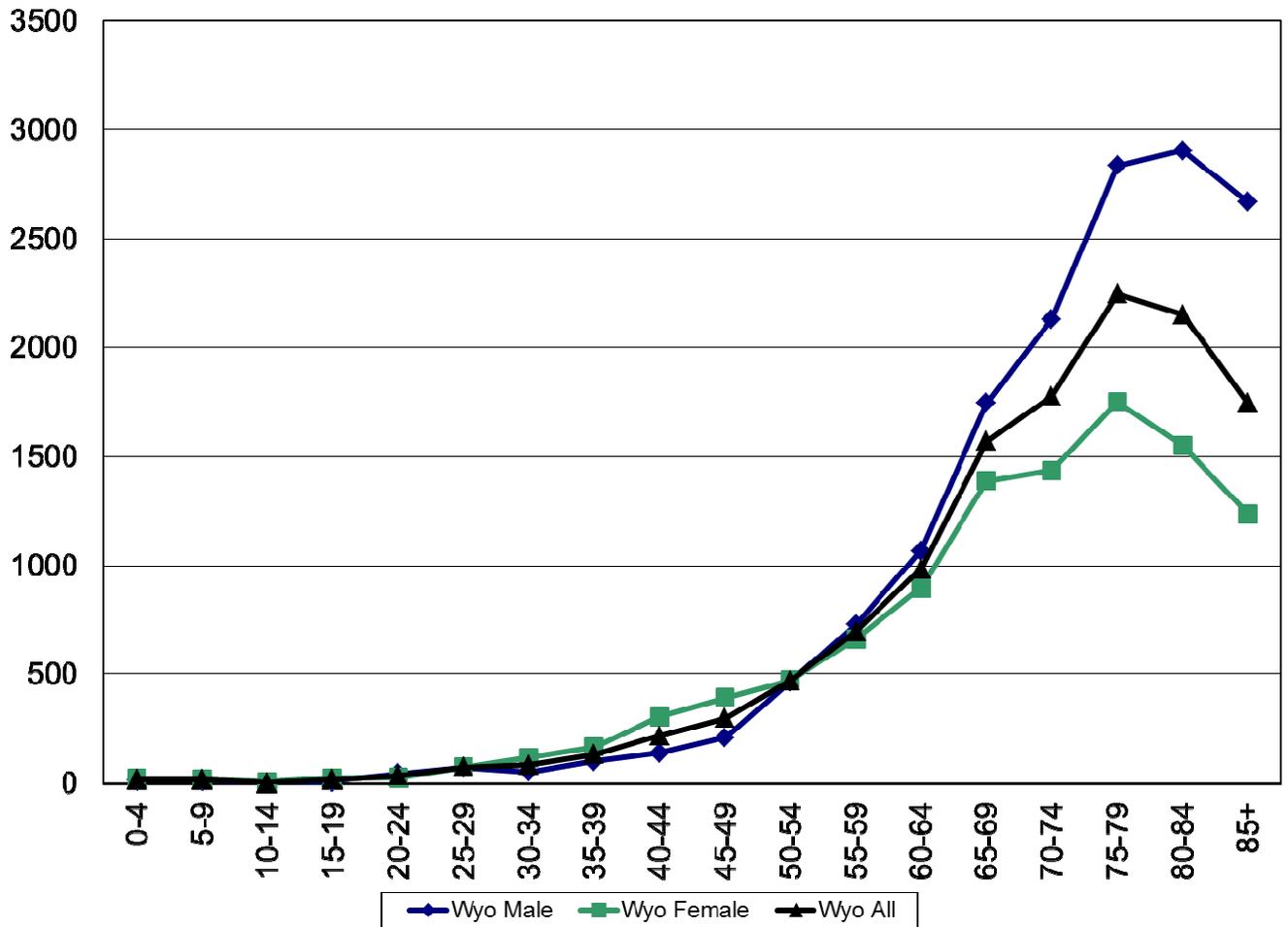
Early detection of cancer is secondary prevention. It involves identifying disease as early as possible, often before symptoms develop, and treatment of the disease immediately thereafter. Screening for certain cancers can increase the probability of effective, timely and cost effective treatment. Knowledge of family history and risk factors helps Wyoming women make informed decisions when talking with health care providers about risks and potential benefits of screening and testing.

This document utilizes Wyoming Cancer Surveillance Program data to examine the incidence and mortality of cancer in Wyoming women, both overall and by several specific cancer sites. Additionally, information on risk factors and the utilization of cancer screening services will be examined.

ALL CANCER SITES

In 2011, the overall incidence rate for cancer in Wyoming women was 369.1/100,000, with 1,135 women diagnosed with some form of cancer. The mortality rate for Wyoming women in 2011 was 129.3/100,000, with 409 Wyoming women dying as a result of cancer. Both the incidence and mortality rates for Wyoming women were lower than the national rates of 421.8/100,000 and 145.9/100,000 respectively. Figure 1 shows how the incidence rate for men and women in Wyoming start off similarly in the early stages of life but then increases between ages 30-49. The women's rate is lower than the men's rate from 60-79 years of age with both rates declining substantially after the age of 80.

Figure 1 – Incidence Rate by Age and Sex – 2011



BREAST CANCER

Breast cancer is the most commonly diagnosed cancer in Wyoming women and the second most diagnosed cancer overall, second only to prostate cancer. In 2011, there were 356 new cases of breast cancer diagnosed, but only 69 deaths. One of the reasons for this positive disparity between diagnosis and mortality is the advances in screening and treatment over the last 40 years. The benefits of mammograms as a population-level screening tool are clear, although the age at which to initiate be debated. There is no doubt that mammograms increase the odds of finding breast cancer at an earlier and more curable stage. Figure 2 shows that in 2011, 73% of the cases diagnosed in Wyoming were diagnosed at the *in situ* or local stages rather than the later regional or distant stages. This is in sharp contrast to the experiences of Wyoming women in the 1970's and 80's. Figure 3 presents the percent of women diagnosed at early (in site, local) versus late (regional, distant) stages over the last forty years in Wyoming. In the early seventies and through most of the eighties, approximately 60% of Wyoming women were diagnosed with breast cancer at late stages. With the advent of better screening and diagnostic procedures (e.g., mammograms, biopsies), this rate has flipped with nearly 70% of women diagnosed at the early stages starting in 2000.

However, this does not mean that all Wyoming women are benefiting from of these technological advances. According to the 2012 Wyoming Behavioral Risk Factor Surveillance System Survey (BRFSS), only 61.9% of Wyoming women over the age of 40 have had a mammogram in the past two years. This is the worst rate in the United States, ranking Wyoming 51 out of all other states and the District of Columbia.

Figure 2 – Stage at Diagnosis – 2011

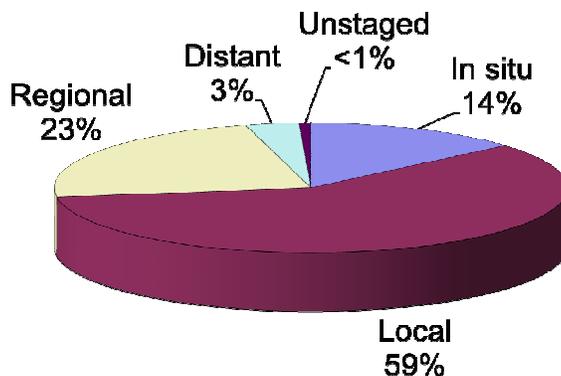
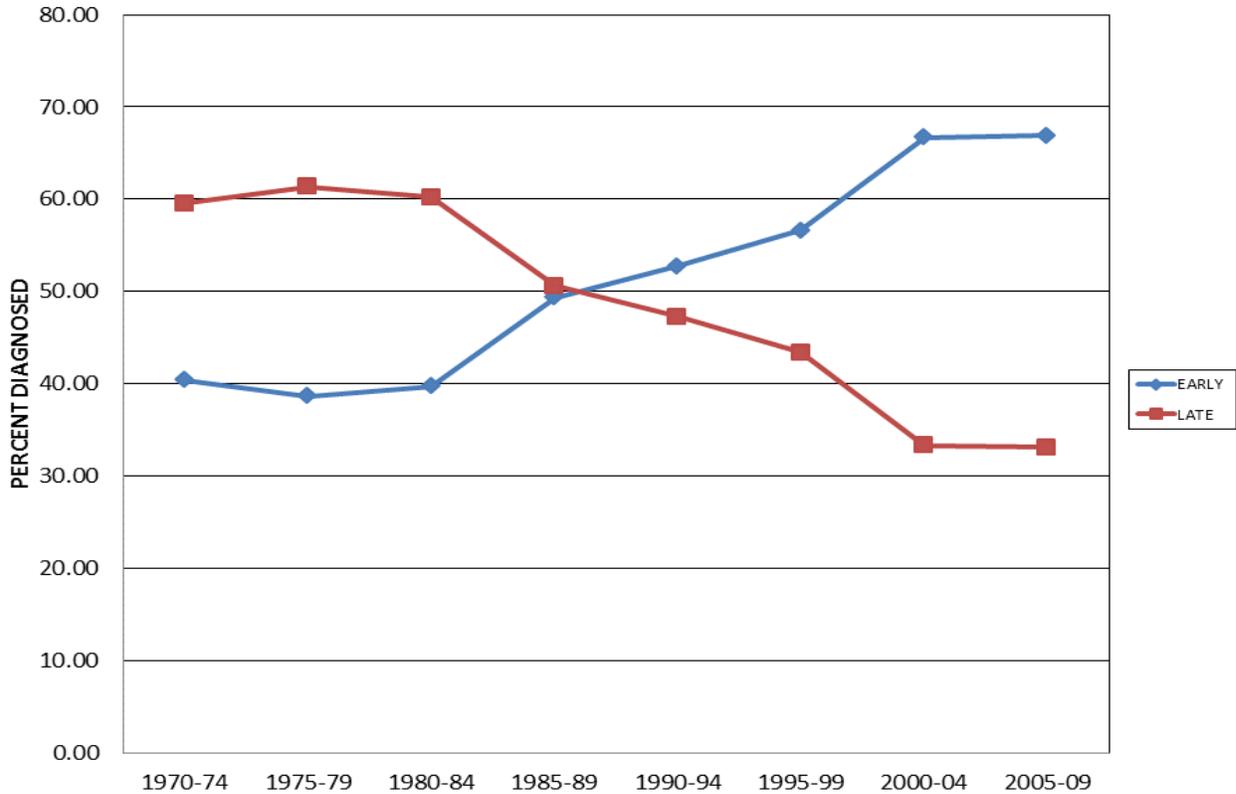


Figure 3 – Early v. Late Stage Diagnosis -Breast



The Wyoming Breast and Cervical Cancer Early Detection Program provides free breast and cervical cancer screening services to eligible women in Wyoming. Services include office visit, pelvic examination, pap test, clinical breast examination, mammogram, certain breast and cervical laboratory tests and breast or cervical diagnostic tests. For more information, call 1-800-264-1296.

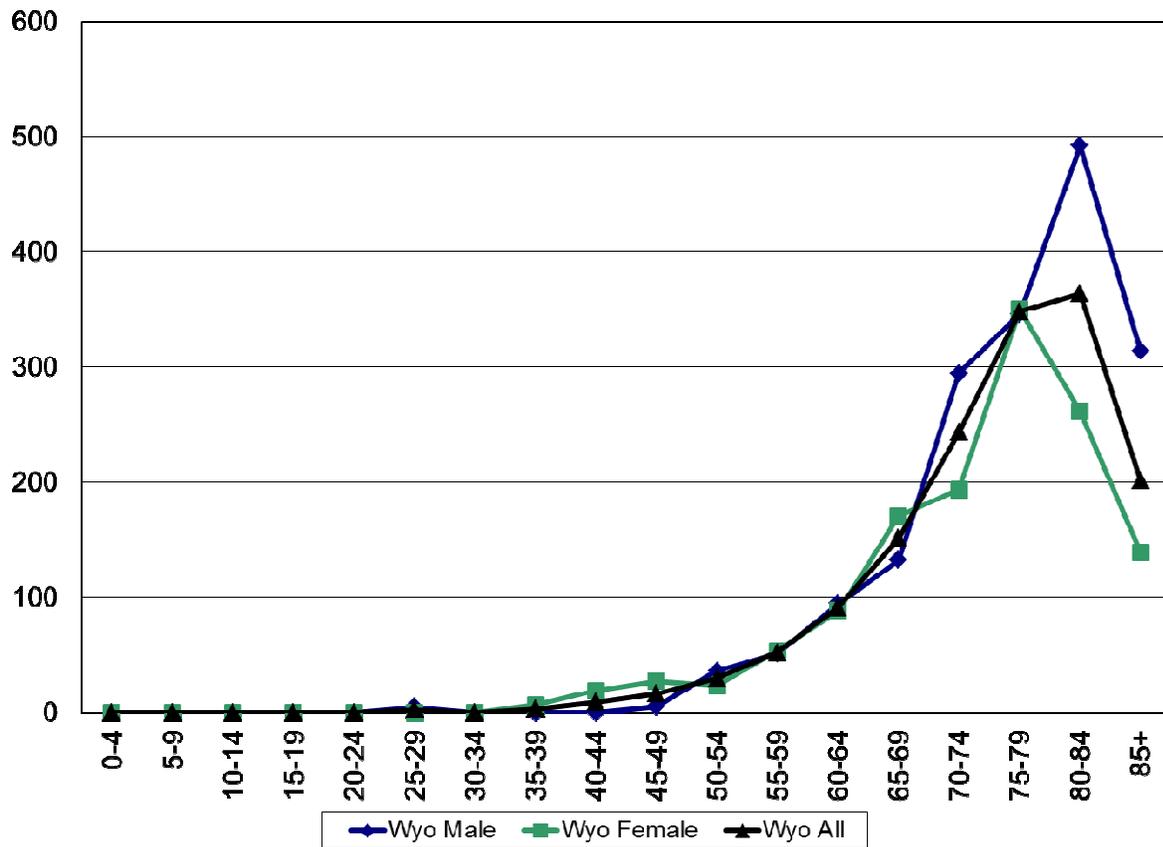
The Caring for Women Program provides wellness examinations, mammograms and pap smears to eligible Wyoming women through a network of participating physicians, hospitals and other professionals. For more information, call 1-888-556-8074.

LUNG & BRONCHUS CANCER

Lung cancer was the second most common cancer in Wyoming women in 2011, with 123 women diagnosed. In terms of cancer mortality, lung cancer is by far the leading cause of cancer death in both men and women in Wyoming, with 92 women dying from lung cancer in 2011. Cigarette smoking is the leading cause of lung cancer and a major contributing factor for a host of other chronic diseases including heart disease, chronic obstructive pulmonary disease (COPD), emphysema, and diabetes.

Nearly one in five Wyoming women are current smokers (18.9%). The smoking rate is highest for younger women (18-44 years) at 28.7% and lowest for women over the age of 65 at 11.2%. Figure 4 shows the incidence of lung cancer for 2011 for Wyoming women, men, and combined by age. While men have a higher rate of lung cancer diagnosis overall and especially at older ages, women are diagnosed at a slightly higher rate from the ages of 35-49. The five-year relative survival rate for lung cancer in Wyoming is dismal at only 15.70%. This rate is somewhat better for women at 17.6% but it still means that less than one in five women diagnosed with lung cancer will survive at least five years.

Figure 4 – Lung Cancer Incidence by Age and Sex – 2011

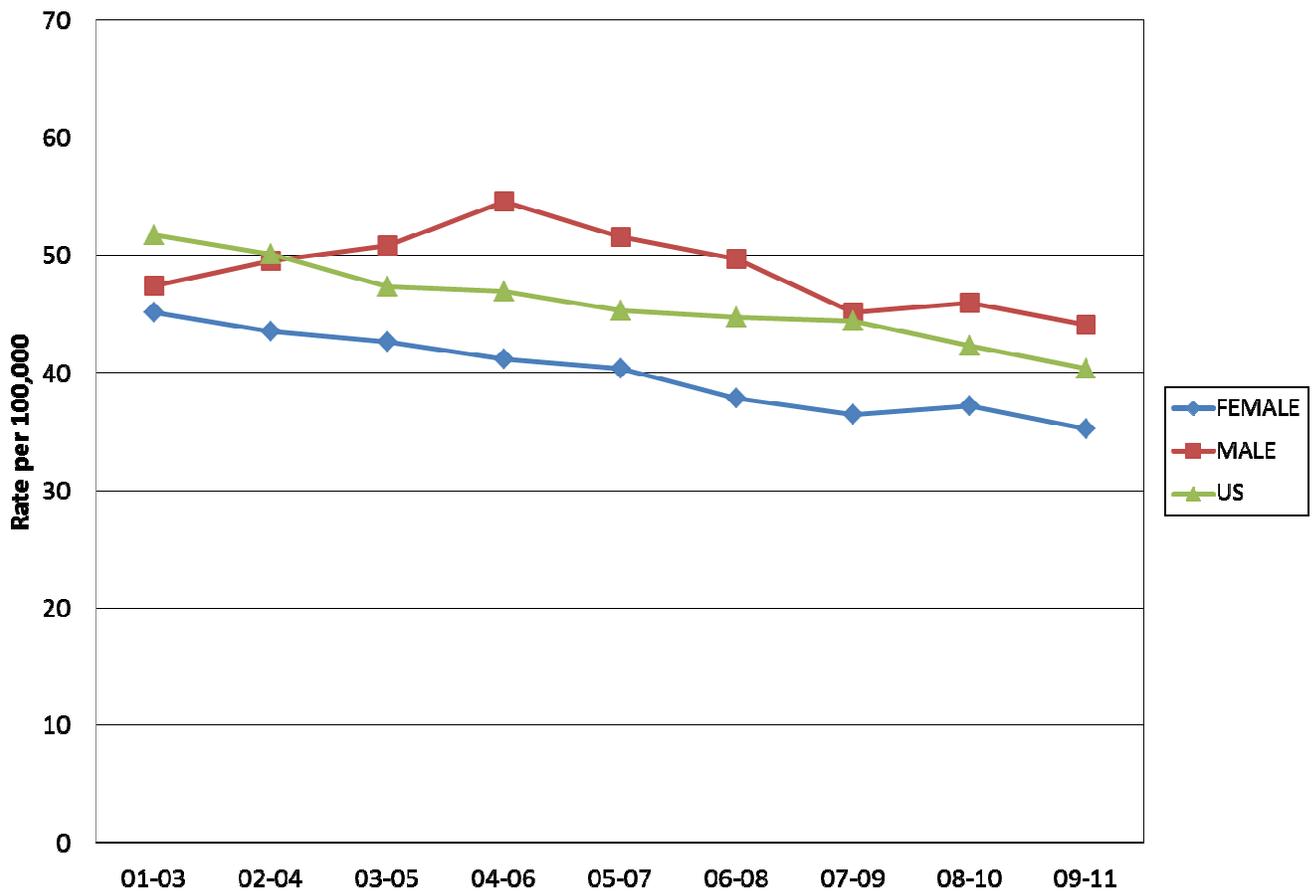


The National Cancer Institute has linked smoking with increased risk of at least 15 types of cancer, including lung and bronchus cancers. Giving up tobacco has a positive impact on the health and well-being of women who smoke. The Wyoming Quit Tobacco Program is a free online service available to eligible Wyoming residents. It offers free coaching and low cost quitting medications. For more information, call 1-800-QUIT-NOW or go to www.quitwyo.org

COLORECTAL CANCER

Cancer of the colon is the third most common cancer in Wyoming women, with 92 cases diagnosed in 2011. It was also the fourth leading cause of cancer death in Wyoming women in 2011 with 29 deaths. Figure 5 shows that while all three trends are decreasing, the incidence rate for Wyoming women remains lower than the national rate and the rate for Wyoming men.

Figure 5 – Wyoming Colorectal Cancer Incidence Trend



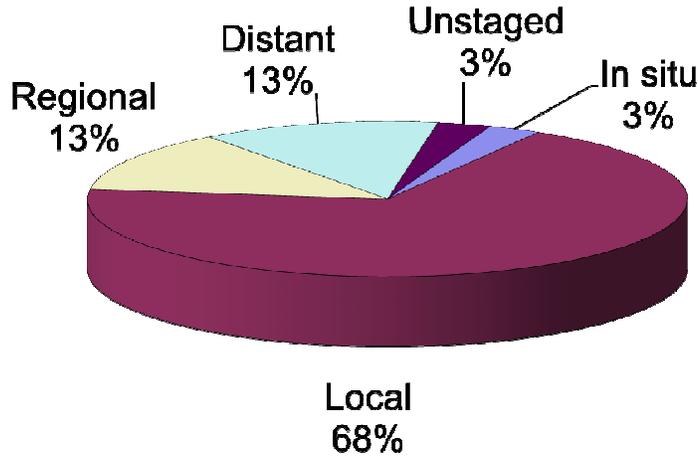
In 2012, only 60.9% of Wyoming adults over the age of 50 reported ever having a sigmoidoscopy or colonoscopy, which was the fourth worst rate in the United States. While there are many reasons why a person might not be screened (cost, time, embarrassment, etc.) the fact is that screening and the removal of precancerous polyps of the colon significantly reduces the risk of developing cancer. While the overall five-year relative survival rate for colorectal cancer is good at 60.20%, it is even better when the cancer is discovered at the *in situ* (85%) or local (84.5%) stages.

The Wyoming Colorectal Cancer Screening Program was established to help eliminate the cost barriers to screening and provides free colonoscopies for eligible Wyoming residents. For more information, call 1-866-205-5292.

UTERINE CANCER

Cancer of the uterus was the fourth most diagnosed type of cancer in Wyoming women in 2011 with 68 women diagnosed but only 11 deaths. As with breast cancer, over 70% of cases diagnosed in 2011 were detected early at the *in situ* or local stages (see Figure 6). This allows for more effective treatment and a five-year relative survival rate for Wyoming women of more than 83%.

Figure 6 – Uterine Cancer by Stage - 2011

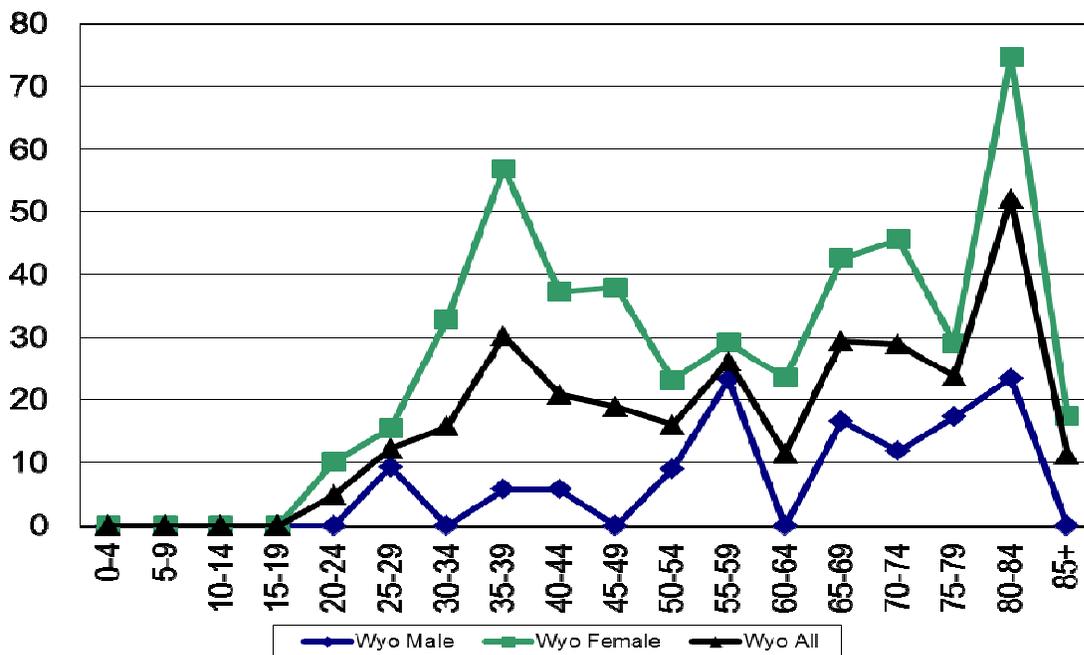


While there are no screening tests for uterine cancer, there are several risk factors associated with uterine cancer. These include being older than 50 years of age, obesity, taking estrogen by itself as hormone replacement, taking Tamoxifen, family history, and menstrual issues (e.g., fewer than five periods a year) before menopause. Symptoms of uterine cancer can include abnormal vaginal discharge, abnormal vaginal bleeding, and pain or pressure in the pelvis.

THYROID CANCER

The rate of thyroid cancer in Wyoming women is nearly five times that of Wyoming men. In 2011, the incidence rate of thyroid cancer in Wyoming women was 23.5/100,000, but only 5.1/100,000 for Wyoming men. This translates to 64 women being diagnosed that year compared to just 16 men. The American Cancer Society states that for reasons not yet understood, thyroid cancer and other thyroid diseases (e.g., hypothyroidism) occur three times more often in women than men. As can be seen in Figure 7, Wyoming women have a higher rate of thyroid cancer than men, but are also diagnosed younger than men. Of the 64 cases diagnosed in 2011, 26 were found in women between 20-44 years of age and 27 were diagnosed in women between 45-69 years of age.

Figure 7 – Thyroid Cancer by Age and Sex – 2011



While women are at increased risk for developing thyroid cancer, few women actually die because of the disease. The five-year relative survival rate for thyroid cancer in Wyoming is 95.60%. Aside from being female, the risk factors for thyroid cancer include radiation exposure, age, a diet low in iodine, family history, and previous thyroid cancer.

ACTION STEPS

The Wyoming Cancer Resource Services (WCRS) Program provides cancer prevention and control services to communities across the state. These services include:

- Education and awareness about cancer prevention programs and services as well as related cancer risk factors
- Promotion of early detection of cancer at intervals required by national screening guidelines
- Education and referral of eligible participants into state-funded cancer screening programs
- Patient navigation for Wyoming residents needing local, regional, state, and national cancer information and resources
- Filling service gaps utilizing resources within the communities in the region

Prior to 2011, the WCRS program was involved in active education, outreach and recruitment efforts on behalf of the Wyoming Breast and Cervical Cancer Early Detection Program (WBCCEDP) and the Wyoming Colorectal Cancer Screening Program (WCCSP). The role of the WCRS Program in support of the state screening programs was changed in 2011 due to concerns about possible screening program budget constraints. A review of cumulative data from 2007 to 2012 shows the impact of this decision by the decrease in program enrollments and completed screenings. These findings prompted discussions within the programs about how to address these issues.

The Wyoming Comprehensive Cancer Control Program (WCCCP) has worked with the WBCCEDP and WCCSP to develop specific strategies for inclusion into the WCRS work plan that will be implemented beginning in July of 2014 to address these issues. Data will be collected and monitored to evaluate WCRS involvement and the impact to early detection and screening in Wyoming.

Definitions

Incidence: the number of newly diagnosed cancer cases that occur in the population per unit of time, usually one year.

Mortality: the number of deaths that occur in the population per unit of time, usually one year.

Rate: the proportion of the population affected during a specified time period (e.g., year) usually defined as per 100,000 persons in a population.

The cancer staging terms used in this report as follows:

In situ: cancer has not invaded the organ.

Local: cancer has invaded the organ of origin.

Regional: cancer has invaded beyond the organ of origin by direct extension to adjacent organs and/or tissues and/or regional lymph nodes.

Distant: direct extension beyond adjacent organs or tissues or metastases to distant site(s) or distant lymph nodes.

Unstaged: the extent of disease or primary site cannot be determined.