

CHAPTER

1

Cervical Cancer

What is Cervical Cancer?

Cervical cancer (*cervical carcinoma*) is an uncontrolled growth of abnormal cells on the cervix. Epidemiological studies have estimated that these changes can progress over a period of years from low grade to carcinoma *in situ* to more advanced invasive cervical cancer.

The impact of cancer in a population is measured and described by looking at incidence rates (the number of new cases per 100,000 persons per year), mortality rates (the number of deaths per 100,000 persons per year), and survival rates (the proportion of patients alive at some point after their diagnosis).

The United States

There are more than 14,500 new cases of and 4,800 deaths from invasive cervical cancer each year in the United States, with striking differences in incidence and mortality rates among racial/ethnic groups. In fact, on a national level, incidence rates among African Americans have consistently been about twice those for Caucasians (American Cancer Society [Facts and Figures], 1997).

The National Cancer Institute began the Surveillance, Epidemiology and End Results (SEER) Program in 1973 in order to estimate cancer incidence and patient survival in the United States. For the years 1989-1993, the incidence rate among African American women was 12.6 per 100,000 persons per year, compared with 7.9 for Caucasian women. This disparity is greatest for women aged 65 and older. In this group, the incidence rate among African American women is 2.3 times the rate among Caucasian women (35.0 per 100,000, compared with 14.9 per 100,000). Cervical cancer is generally detected earlier in Caucasian women than in African American women. For this reason, Caucasian women diagnosed with regional disease have a 51.9% five-year survival rate, as compared with 41% for African American women diagnosed with regional disease.

In the United States, incidence and mortality rates for cervical cancer are also higher among American Indian women than among other racial or ethnic groups. The cervix is one of the most common sites of cancer for American Indian women, and invasive cervical cancer represents 7% of all new malignancies found. In addition, American Indian women tend to have more advanced stages of the disease at the time of diagnosis, are less apt to receive treatment, and have a poorer chance for survival, when compared with other racial or ethnic groups.

National Objective to Reduce Mortality

In 1991, the U.S. Department of Health and Human Services published objectives of a national strategy for significantly improving the health of the nation by the year 2000 through health promotion and prevention of major chronic illnesses, injuries, and infectious diseases (U.S. DHHS [*Healthy People 2000*], 1991).

The national objective related to cervical cancer is to reduce the rate of deaths from the 1987 age-adjusted baseline of 2.8 per 100,000 to no more than 1.3 per 100,000 women. This objective is based upon the hypothesis that mortality reduction since the 1970s has been due primarily to the widespread use of the Pap smear for early detection. The greatest risk of cervical cancer mortality is known to be among older women, who are the least likely group to be screened for cervical cancer. Awareness of the prevention potential of regular screening, coupled with the observation that a significant proportion of women is not receiving Pap tests regularly, led to the development of this national objective.

Cervical Cancer is Preventable and Curable

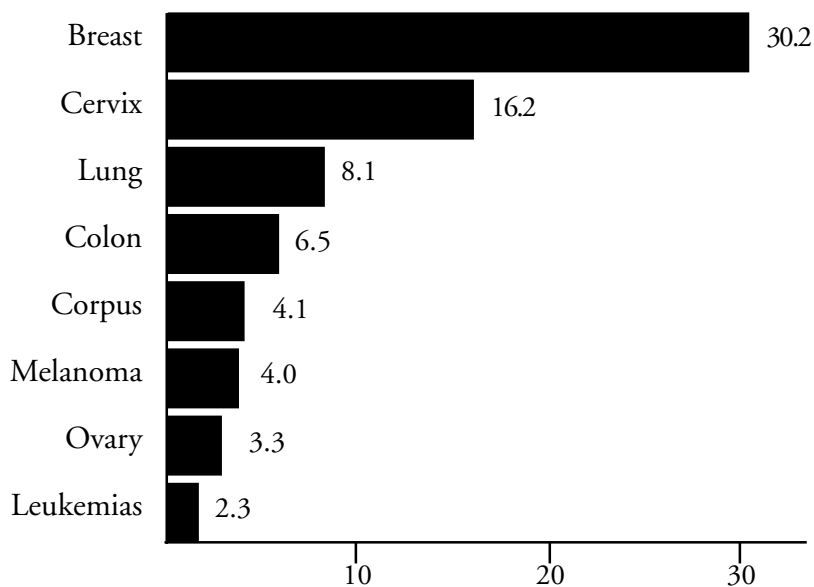
If Pap smears are obtained routinely and accurately, and if appropriate follow-up is done, the vast majority of deaths from cervical cancer can be prevented. The key intervention is to make the diagnosis early—when dysplasia and *in situ* cancer are nearly 100% curable. Generally, in the absence of intervention, it takes years to progress from mild dysplasia to invasive cervical cancer. There are, however, a small number of women who progress to invasive cancer in approximately 3 years. These women may have had a false negative Pap smear.

New Mexico

New Mexico's Cervical Cancer Problem

This handbook reflects concern about continued mortality from cervical cancer in New Mexico. It offers recommendations for attacking cervical cancer and preventing, if not completely eradicating, the disease.

Leading Cancers Diagnosed in 1995 for Women*



*Includes *in-situ* cancers

Percent of Total

Source: New Mexico Tumor Registry, 1997.

Incidence It is estimated that 70 new cases of invasive cervical cancer will be diagnosed in New Mexico in 1997. By contrast, 400 to 500 *in situ* cases will be diagnosed. The majority of the *in situ* cases is detected in women under age 35, while invasive cases occur among women of all ages (NM Tumor Registry, 1997). Incidence is increased in women who are HIV positive. In a recent 2 year period (1992-93) at the University of New Mexico (UNM) Health Sciences Center, the Cytopathology Laboratory determined that 8.6% of all Pap smears screened showed evidence of mild dysplasia or higher grade lesions. In 1995, the Lab examined 15,978 smears; of those 2.1% were low-grade intraepithelial lesions (LGSIL), 1% were high-grade intraepithelial lesions (HGSIL) and 0.13% were cancer.

Mortality Older women are more likely to die from cervical cancer than are younger women. In New Mexico there were approximately 20 cervical cancer deaths in 1994 (New Mexico Selected Health Statistics, 1994). The mortality rates increase with age, but a preventable number of deaths occur among women less than 50 years of age.

Survival The 5-year survival rate for all women in New Mexico with invasive cervical cancer is 68.7%. For those diagnosed when the cancer is at a localized stage, however, the survival rate is 91.3%. If the disease is diagnosed *in situ*, the 5-year survival rate is almost 100%.

