



Progress in the Control of Cancer of the Cervix in Rhode Island, 1987-2000

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[Fourth in a Series]

PROFILE

In Rhode Island, about 800 women have been diagnosed with cervical cancer (837 in 1998), about 50 women are newly diagnosed with cervical cancer each year (46 in 2000), and about 10 succumb to the disease annually (11 in 1999). In Rhode Island, cervical cancer accounted for less than one percent of all newly diagnosed cancers in 2000, and only 0.4% of all cancer deaths in 1999. However, given the effectiveness of regular screening with the Pap test, any case of cervical cancer and any death from this disease must be seen as a public health failure.

CONTROL STRATEGY

Several risk factors for cancer of the uterine cervix have been identified.¹ However, the most clinically significant strategy for the reduction of cervical cancer is use of the Pap test (Pap smear), a noninvasive, inexpensive, simple screening procedure that allows physicians to find and treat precancerous dysplasias and localized tumors. The effectiveness of screening with the Pap test for the reduction of cervical cancer mortality has been demonstrated by several studies.² Although reports of high false-negative and false-positive rates have caused the accuracy of the Pap test to be questioned, the rescreeing of smears and the development of computer-based automated technology have reduced the proportion of false results.³ Aggressive use of the Pap test remains a key control strategy accompanied by multidisciplinary, state-of-the-art treatment, if necessary. The Rhode Island Cancer Control Plan,⁴ published September, 1998, recommends:

Cervical Cancer Screening

- * For women in high risk groups — women with multiple sex partners, sexually promiscuous partners, early age at first intercourse, and/or a history of a sexually transmitted disease (including human papilloma virus) — Pap smears should be performed annually.
- * For women who are HIV positive, Pap smears should be performed at least annually.
- * For asymptomatic women with a cervix and no risk factors, regular Pap smears should be performed if a woman is or has been sexually active. There is no

upper age limit for the performance of regular Pap smears.

- * If a history of past and/or present sexual activity cannot be accurately determined and a woman is 18 years of age or over, routine Pap screening should be initiated.
- * Women who have had a hysterectomy cannot be presumed to be without cervical tissue and the decision to screen them with Pap smears should be determined on a case by case basis.

Basic Treatment Infrastructure

- * Promote and support the adoption of American College of Surgeons (ACOS) approved cancer programs in all acute care hospitals in Rhode Island.
- * Assure accurate tumor staging with American Joint Committee on Cancer (AJCC) staging methodology.

2010 TARGETS

Healthy People 2010, the most recent set of health objectives for the United States,² suggests the following targets for the control of cervical cancer:

Screening

By 2010, increase the proportion of women aged 18 years and older who have ever received a Pap test to 97% (baseline = 92% in 1998), and increase the proportion of women aged 18 years and older who have received a Pap test within the preceding 3 years to 90% (baseline = 79% in 1998).

Mortality

By 2010, reduce the cervical cancer death rate to 2.0 deaths per 100,000 females (age-adjusted to the year 2000 standard population of the United States; baseline = 3.0 deaths per 100,000 females in 1998).

Trends

(Please refer to Table 1.)

Screening

The proportion of Rhode Island women of all races, aged 18 years and older, who had received a pap test within the preceding 3 years increased from 80% in 1992 to 89% in 2000. Among all the states, the median proportion of

Table 1. Progress in the control of cervical cancer:

- % women who have had a Pap smear within the past three years
- Average annual age-adjusted cervical cancer incidence rates by summary stage of disease at diagnosis among women of all races
- % cases in RI ACOS-approved treatment programs, of cases with AJCC staging, and of localized cases with recommended treatment
- Average annual cervical cancer mortality rates among women of all races

Place	Measure	Source	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
RI	% Screened *	[a]				80.0	83.9	NA	82.9	82.9	87.4	85.2	86.0	88.5
U.S.	% Screened					84.1	84.7	85.4	84.5	84.6	84.6	84.8	85.5	86.8
RI	Incidence - Local **	[b]	4.8	5.4	5.7	6.0	6.3	6.4	6.2	5.7	5.5	5.1		
RI	Incidence - Regional	[b]	2.7	3.0	2.8	2.8	3.0	2.9	2.9	2.7	2.6	2.4		
RI	Incidence - Distant	[b]	1.1	1.0	1.0	1.1	1.2	1.4	1.5	1.5	1.5	1.4		
RI	Incidence - Unknown Stage	[b]	1.4	1.5	1.4	1.2	1.1	1.1	0.9	0.8	0.9	0.8		
RI	Incidence - All Invasive ***	[b]	10.0	10.8	11.0	11.2	11.6	11.8	11.4	10.7	10.4	9.7		
U.S.	Incidence - All Invasive	[c]	10.4	10.4	10.2	10.0	9.6	9.5	9.4	9.3	9.0	NA		
RI	% Cases in RI ACOS Tx Pgms	[b]	32	28	27	23	29	26	20	39	73	82	90	96
RI	% Cases with AJCC Staging	[b]	72	77	81	73	84	97	90	93	94	87	92	87
RI	Mortality	[d]	2.6	2.8	3.0	3.0	2.8	3.3	3.2	2.9	2.9	NA		
U.S.	Mortality	[d]	3.6	3.6	3.5	3.5	3.4	3.4	3.3	3.2	3.1	NA		

- * Percentage of women who have had a Pap smear within the past three years
- ** Incidence and mortality rates are based on five years' data (e.g., 1989 = 1987-1991; 1998 = 1997-2000), age adjusted to the 2000 U.S. standard population, expressed as cases per 100,000.
- *** Invasive includes the following stages of disease at diagnosis: local, regional, distant, and unknown
- [a] Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention
- [b] Rhode Island Cancer Registry, Rhode Island Department of Health
- [c] National Cancer Institute. *SEER Cancer Statistics Review 1973-1999*. Bethesda, MD: National Cancer Institute, 2002.
- [d] CDC Wonder, Centers for Disease Control and Prevention
- NA Data not available or not applicable

women of all races, aged 18 years and older, who had received a pap test within the preceding 3 years increased from 84% in 1992 to 87% in 2000.

Incidence

The age-adjusted incidence of invasive cervical cancer (2000 standard) among Rhode Island women of all races was 10.0 cases per 100,000 women in 1987-1991, peaked at 11.8 cases per 100,000 women in 1992-1996, then returned to 9.7 cases per 100,000 in 1996-2000 (based on five-year moving averages). In contrast, the age-adjusted incidence of invasive cervical cancer (2000 standard) among U.S. women of all races decreased from 10.4 cases per 100,000 women in 1987-1991 to 9.0 cases per 100,000 women in 1995-1999.

When age-adjusted incidence rates of invasive cervical cancer in Rhode Island are broken down by stage of disease at diagnosis, the incidence of local tumors peaked in the mid-1990s (from 4.8 cases per 100,000 women in 1987-1991 to 6.4 cases per 100,000 women in the mid-1990s to 5.1 cases per 100,000 women in 1996-2000). There was

no significant change in the incidence of regional tumors until it declined slightly from 3.0 cases per 100,000 women in 1991-95 to 2.4 cases per 100,000 women in 1996-2000 (based on five-year moving averages). Age-adjusted incidence rates for both distant tumors and tumors of unknown stage hovered around 1 case per 100,000 women.

[Note: Adoption of the Bethesda System for classifying cervical cytology in the late 1980s made it impossible to distinguish in situ cervical cancer from high grade cervical dysplasias. Thus, cancer case reports for in situ tumors accepted after that time must be considered suspect. Recognition of this fact led to the termination of such reports by cancer registries around the country in 1996.]

Basic Treatment Infrastructure

From 1989 through 1996, the percentage of Rhode Island women newly diagnosed with cervical cancer who were treated under the auspices of in-state ACOS-approved hospital cancer programs averaged 28%. The addition of a program in 1997 and two more in 2000 brought the proportion of newly diagnosed cervical cancer cases treated under