

Health Factsheet

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Trends of Cervical Cancer in Singapore 2007-2011

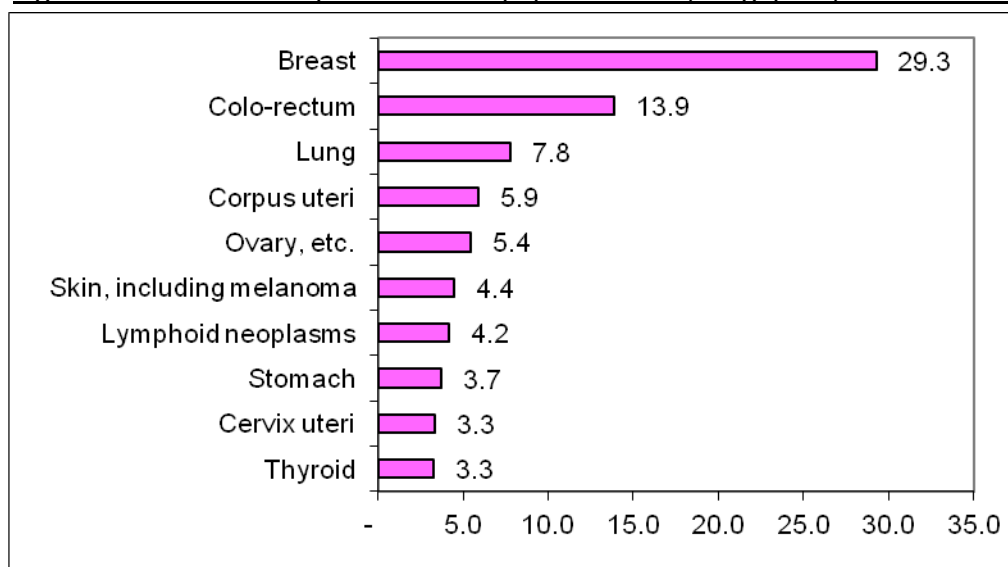
1. Introduction

- Cervical cancer is the cancer of the cervix or the neck of the womb (uterus).
- It is one of the preventable cancers and is curable if it is treated in the pre-cancerous stage.
- Over the past decades, the incidence of cervical cancer has declined in developed countries where public education, screening and treatment have been made accessible to women.¹

2. Ranking of cancers

- Cervical cancer is the 9th most common cancer among Singaporean women (Fig.1).
- About four decades ago (1968-1972), it was the second most common cancer amongst the Singaporean women.²

Figure 1: Ten Most Frequent Cancers (%) in Females, Singapore, 2007 – 2011

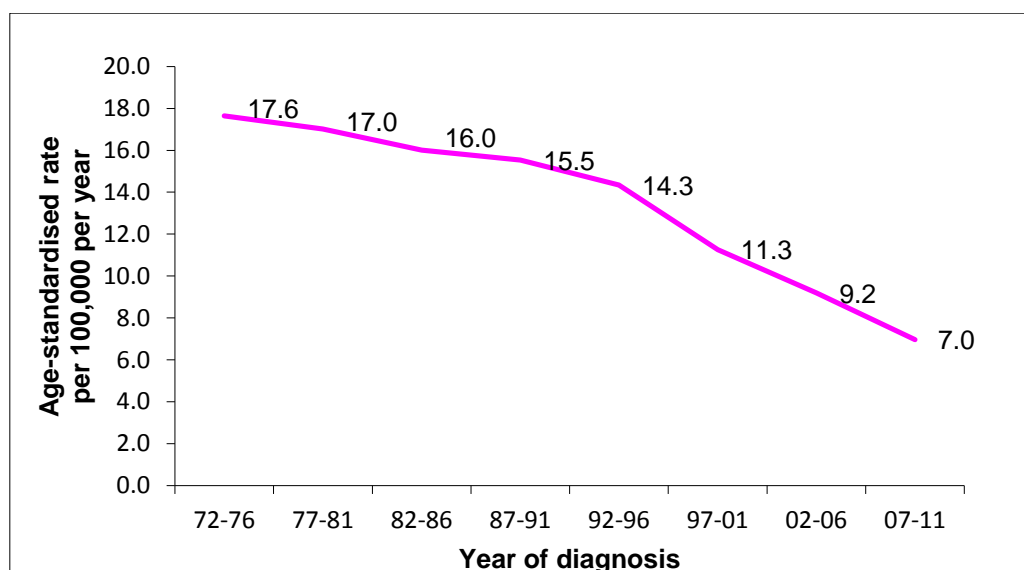


1. Progress in Cervical cancer Prevention: The Cervical Cancer Action (CCA) Report Card, January 2012 <http://www.uicc.org/advocacy/progress-cervical-cancer-prevention-cca-report-card>
2. Cancer Survival in Singapore 1968-2007. Singapore Cancer Registry

3. Incidence of cervical cancers

- A total of 918 new cases of cervical cancer were diagnosed from 2007-2011.
- The incidence rate for cancer of the cervix has significantly declined over the last forty years.
- The age-standardised incidence rates (ASR) dropped from 17.6 per 100,000 in 1972-1976 to 7.0 per 100,000 in 2007-2011 (Fig.2).
- This decline is likely the result of more Singaporean women going for Pap smear screening through a Pap smear test which has been widely available since its first introduction into Singapore in 1964^{3,4} and good clinical management of pre-cancerous lesions.
- Indian women had the lower risk of developing cervical cancer compared to Chinese and Malay women (Table 1).

Figure 2: Age-Standardised Incidence Rates for Cervical Cancer, Singapore, 1972-2011



3. Seow A, Wong ML, Smith WC, Lee HP. Beliefs and attitudes as determinants of cervical cancer screening: a community-based study in Singapore. *Prev Med.* 1995 Mar;24(2):134-41.

4. Epidemiology and Disease Control Department, Ministry of Health. National Health Survey 2010 Singapore.

Table 1: Crude and Age-Standardised Incidence Rates for Cervical Cancer by Ethnic Group, 2007-2011

ETHNIC GROUP	NO.	CR	ASR
Chinese	770	11.0	7.3
Malay	100	8.0	7.2
Indian	17	2.1	2.1
Others	31	10.5	8.4
All Races	918	9.8	7.0

No. – Incidence count of new cases

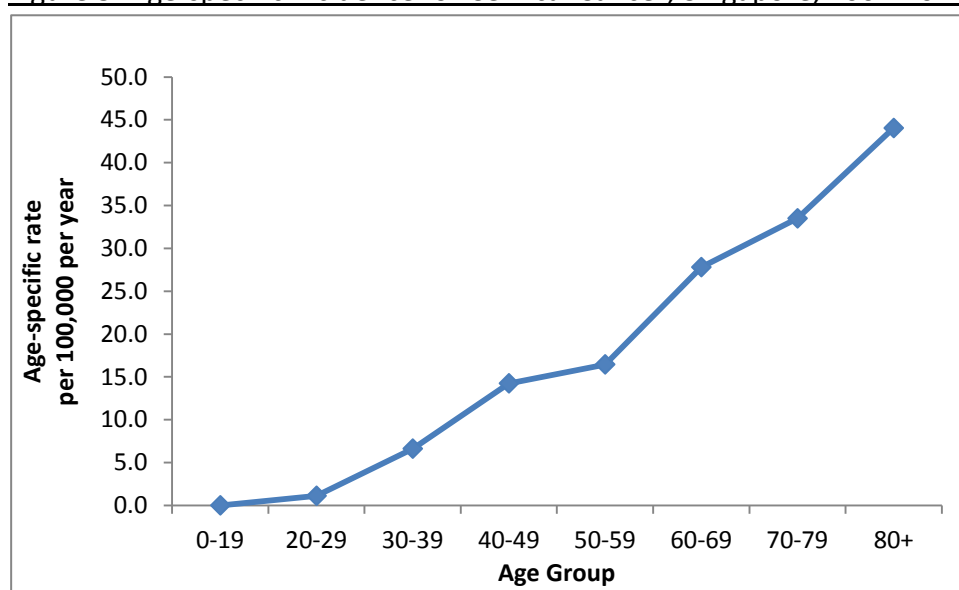
CR – Crude rate per 100,000 per year

ASR – Age-Standardised rate per 100,000 per year

4. Age at Diagnosis

- The incidence rate was lowest in the age group of 20-29, at 1.1 per 100,000 compared to 33.5 per 100,000 in women aged 70-79 (Fig. 3).

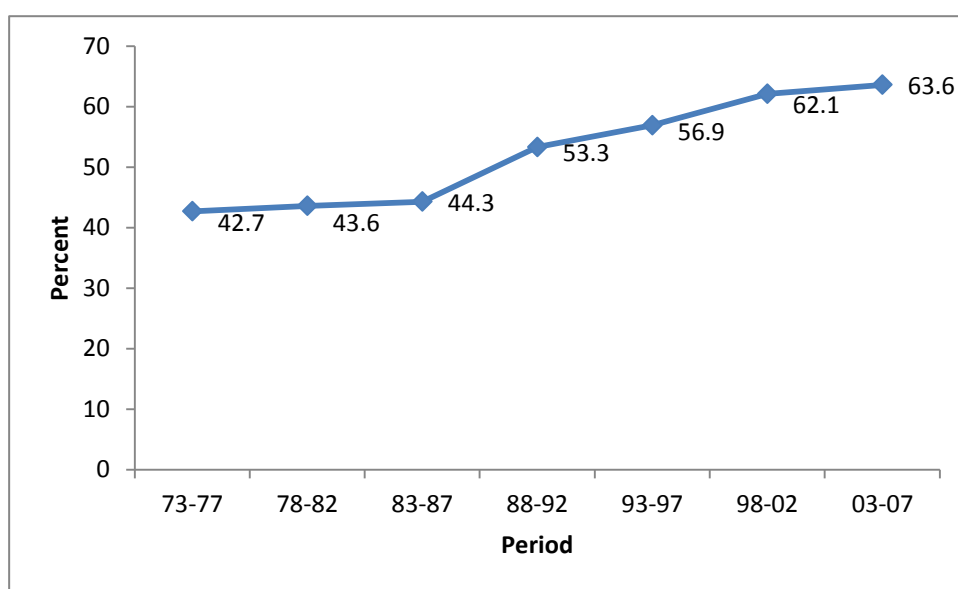
Figure 3: Age-specific incidence for Cervical Cancer, Singapore, 2007-2011



5. Survival Rates

- The age-standardised 5-year observed survival rate for cervical cancer has increased from 42.7% in 1973-1977 to 63.6% in 2003-2007 (Fig. 4).
- The observed survival rate refers to the percentage of patients with cervical cancer that are alive 5 years after diagnosis.
- The improvement in survival from cervical cancer is related to early detection of cancer through screening and advances in cancer treatment in recent years.⁵

Figure 4: 5-year Age-Standardised Observed Survival Rates for Cervical Cancer, Singapore, 1968-2007⁴

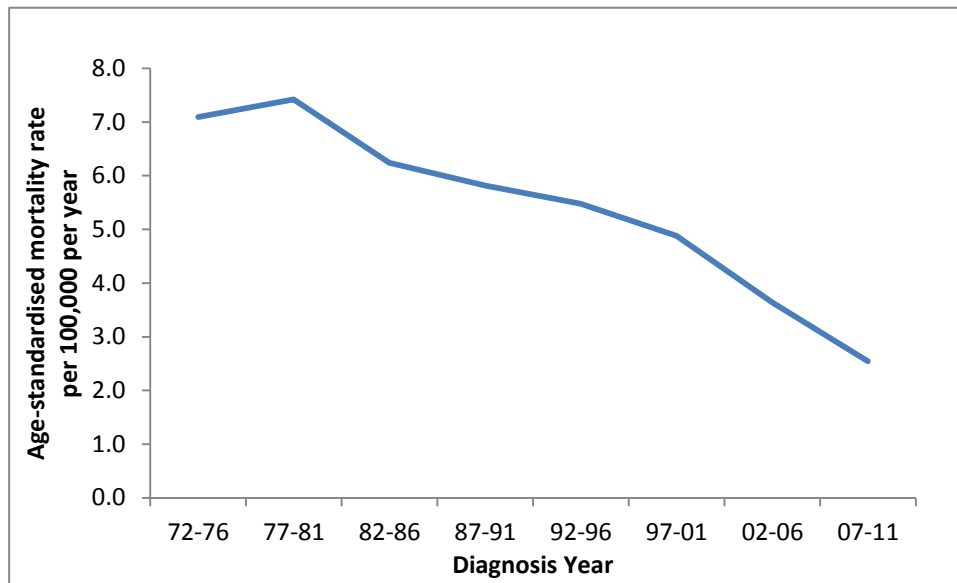


6. Mortality Rates

- Cervical cancer has the 8th highest cancer mortality rate in Singapore.
- The age-standardised mortality rate for cervical cancer was 7.1 per 100,000 per year for the period 1972 – 1976, and this decreased progressively to 2.5 per 100,000 for the period 2007 - 2011 (Fig. 5).

- There were 354 deaths from cervical cancer for the period 2007 -2011

Figure 5: Age-standardised Mortality Rates for Cervical Cancer, Singapore, 1972-2011



*ASR (1971-2000) are estimated figures

7. RISK FACTORS FOR CERVICAL CANCER

Women with the following conditions are at a higher risk of developing cervical cancer⁶

- Infection with the Human Papilloma Virus (HPV)
- Human Immunodeficiency Virus (HIV) positive
- Immunosuppression
- Multiple sexual partners
- Onset of sexual intercourse at an early age
- History of sexually transmitted infections such as genital warts or genital herpes
- Long term consumption of combined oral contraceptive pills
- Cigarette smoking

Conversely women who have never had sexual intercourse are at low risk for cervical cancer.⁶

⁶ MOH Clinical Practice Guidelines on Cancer Screening, 1/2010

8. CERVICAL CANCER SCREENING

Why Screen?

Precancerous and cancerous changes in the cervix can be detected using the Pap smear test. The simple and safe test involves collecting cells from the cervix (neck of the womb), usually with minimal discomfort to the women.

Cervical cancer may present in the following ways:

- Vaginal bleeding following sexual intercourse or in between periods or after menopause
- Watery, bloody vaginal discharge that may be heavy and have a foul smell
- Lower abdominal pain or pain during intercourse

Women are advised to consult a doctor immediately if they have any of these symptoms.

Early stages of cervical cancer are usually without any symptoms. Hence the only way to detect early changes in the cervical cells is through regular Pap smears.

Women who have had sex or who are sexually active are advised to go for a Pap smear once every 3 years from the age of 25⁷. Pap smears are available at all polyclinics, hospitals, most private clinics and at the Singapore Cancer Society.

Screening in Singapore

CervicalScreen Singapore (CSS) is the national screening programme for cervical cancer, started by the Health Promotion Board in 2004. This programme encourages women aged 25 to 69 years old who have had sex to go for a Pap smear tests once every 3 years. Subsidised Pap smear tests are also available at Chronic Disease Management Programme (CDMP)-registered General Practitioner (GP) clinics, polyclinics and some private clinics.

Further information on symptoms, screening, treatment and prevention of cervical cancer is available at HPB on-line:

<http://www.hpb.gov.sg/healthscreening/article.aspx?id=8766>

For more information on CervicalScreen Singapore, call 1800 2231313.

⁷ MOH Clinical Practice Guidelines on Health Screening 2010.

9. PREVENTION OF CERVICAL CANCER

Living a healthy lifestyle and taking pro-active approach with regular screening can prevent cancers from affecting our lives.

There are two types of HPV vaccines available in Singapore. These vaccines protect against infection caused by HPV subtypes 16 and 18; the two viral subtypes that account for around 70% of HPV-related cervical cancer⁸. Though HPV vaccination is currently not mandated by law, the MOH Expert Committee on Immunisation has recommended the inclusion of the HPV vaccines in the National Childhood Immunisation Programme (NCIP) for women between 9 and 26 years of age⁹. Primary care doctors play an important role in raising the awareness of HPV vaccination among young female patients and parents with young girls.

Vaccination against HPV does not obviate the need for regular Pap smear screening as there are other subtypes of HPV that cause cervical cancer. Women who have been vaccinated with HPV vaccines are encouraged to continue to have a Pap smear every 3 years.

⁸ Paavanen J et al. Efficacy of a prophylactic adjuvanted bivalent L1 virus-like-particle vaccine against infection with human papillomavirus types 16 and 18 in young women: an interim analysis of a phase III double-blind, randomised controlled trial. *Lancet*. 2007. Jun 30;369(9580):2161-70.

⁹ Extending Medisave300 to HPV Vaccination. MOH Press Releases. Date:2 Oct 2010