Non-Communicable Diseases Watch

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衞生防護中心 Centre for Health Protection

衞生署 Department of Health

Multi-level Protection of Cervical Cancer

Key Points

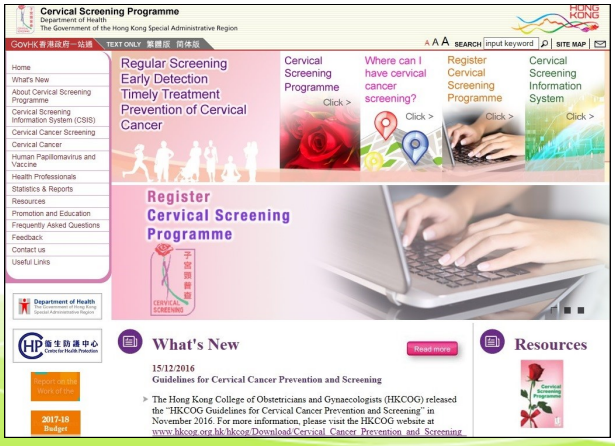
※ Cervical cancer is one of the most common malignancies in women and human papillomavirus (HPV) infection by certain viral types is considered a necessary cause.

※ HPV vaccines (also known as cervical cancer vaccine) are proven to be highly effective in preventing infection with the targeted types of HPV if given before initial exposure to the virus. However, HPV vaccination cannot clear the virus in those who have already been infected. Besides, it does not protect against infection by the HPV types that are not found in the vaccines. Therefore, HPV vaccination cannot offer 100% full protection from cervical cancer.

※ In addition to HPV vaccination before onset of sexual activity, practicing safer sex and avoiding smoking can reduce HPV infection and its progression from persistent infection to cervical cancer. To detect cervical precancerous lesions and cervical cancer at an early stage before symptoms appear, cervical cancer screening is still essential.

※ The Cancer Expert Working Group on Cancer Prevention and Screening recommends women aged 25 to 64 who ever had sex should receive regular cervical cancer screening. If in doubt, please consult family doctor.

※ For more information about cervical cancer prevention and screening, please visit http://www.cervicalscreening.gov.hk.



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Multi-level Protection of Cervical Cancer

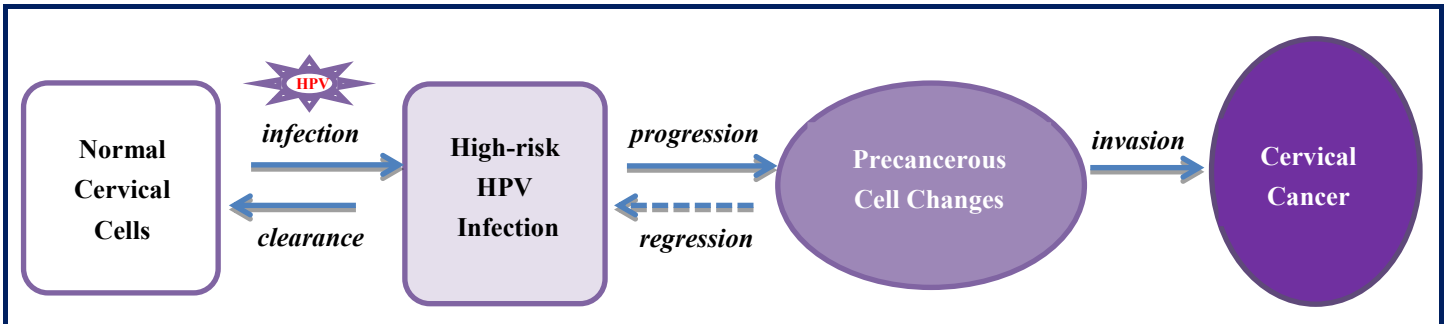
Cervical cancer is one of the most common malignancies that develop within the female reproductive system. In 2012, there were an estimated 528 000 new cases and 266 000 deaths from cervical cancer globally.[1] In Hong Kong, cervical cancer was the 8th most common cancer among females with 472 new cases registered in 2014 and the 8th leading cause of female cancer deaths with 169 registered deaths in 2015.[2, 3]

HPV Vaccination

HPV infection is considered a necessary cause of cervical cancer. For the majority of affected females, the infection is usually asymptomatic and they can clear it on their own without any intervention. However, some females with persistent high-risk (cancer-causing) HPV infection in the cervix will develop precancerous cell changes. While spontaneous regression of precancerous cells is highly probable, some may progress to cancer over years (Figure 1).[4, 5] While there are many types of HPV, types 16 and 18 are the most commonly identified high-risk HPV associated with cervical cancer. Together, they account for about 70% of cervical cancers worldwide.[5] It is noteworthy that high-risk HPV types 52 and 58 are more prevalent and contribute to a higher proportion of cervical cancer in Hong Kong than Western countries.[6] As revealed in a local study involving 236 Chinese women aged 26-87 years who had received cervical cancer treatment, types 16 (60.2%), 18 (21.6%), 52 (11.9%) and 58 (9.3%) were the most prevalent HPV types detected.[7]

As shown in Table 1, three prophylactic vaccines have been registered in Hong Kong for the prevention of cervical cancers and other HPV-related diseases. All three vaccines are proven to be highly effective in preventing infection with the types of HPV they target if given before initial exposure to the virus.[6, 9] The World Health Organization's Global Advisory Committee on Vaccine Safety concluded that all vaccines had good safety profiles.[10] Although mild local reactions following injection (such as redness, pain and swelling) are common and systematic adverse effects (such as muscle pain, fever, headache and nausea) may occur, they generally subside within days. Overall, the benefits of HPV vaccination outweigh the risks of possible side-effects. As HPV vaccines can either be given as 2-dose or 3-dose schedule according to the age of the individuals, please consult doctor for further advice. However, the vaccines cannot cure any existing HPV infections or related diseases, nor can clear the virus in those who have already been infected. Because of limited data, vaccination during pregnancy is not recommended.[6, 11]

Figure 1: Natural history of cervical carcinogenesis[4]



(Modified from Schiffman and Kjaer 2003)

Table 1: The attributes and dosing recommendations of the three registered HPV vaccines available in Hong Kong[6]

Vaccine	2-valent	4-valent	9-valent
HPV types targeted	• 16, 18	• 6, 11, 16, 18	• 6, 11, 16, 18, 31, 33, 45, 52, 58
Target group	• From the age of 9 years (Female only)	• From the age of 9 years (Both female and male)	• From the age of 9 years (Both female and male)
HPV-related diseases prevented	• Cervical cancer	• Cervical cancer • Genital warts	• Cervical cancer • Genital warts
Approved dose regime in Hong Kong	• 9-14 years old: 2 doses • 15 years old and above: 3 doses	• 9-13 years old: 2 doses • 14 years old and above: 3 doses	• 9-14 years old: 2 doses • 15 years old and above: 3 doses

Safer Sex Practices

A number of predisposing conditions or factors can increase the risk of HPV acquisition or persistence or development of cervical cancer. They include multiple sexual partners or sexual partner with multiple sexual partners, sexual intercourse at early age, co-infection with sexually-transmitted diseases (such as chlamydia, herpes simplex and gonococcal infections), smoking, weakened immunity (such as infected with Human Immunodeficiency Virus), long term use of oral contraceptive pills for more than 5 years, increasing parity (number of babies born) and younger age at first pregnancy.[8] In addition to HPV vaccination before onset of sexual activity, cervical cancer can also be effectively prevented by practicing safer sex (such as avoid having multiple sexual partners and use condoms) to reduce the chance of HPV infection and to protect against sexually transmitted diseases. Avoiding smoking can help to reduce HPV infection and its progression from persistent infection to cervical cancer.[6, 9]

Cervical Cancer Screening

As HPV vaccine cannot offer a 100% full protection from cervical cancer, cervical cancer screening is still essential for vaccinated females to detect cervical precancerous lesions and cervical cancer at an early stage before symptoms appear. Pooled evidence from a dozen case-control studies showed that cytology screening (commonly referred to as the Pap smear) for cervical cancer was associated with 65% reduction in the incidence of invasive cervical cancer.[12]

MYTH: 'I have got HPV vaccination, so I am protected and don't need cervical cancer screening anymore.'

FACT: Even you have received HPV vaccination, you still need regular cervical cancer screening because HPV vaccination does not protect against the HPV types not included in the vaccine, nor clear the existing virus.

Since 2004, the Hong Kong Government launched the territory-wide Cervical Screening Programme (CSP) in collaboration with local healthcare professionals to facilitate and encourage women to have regular cervical cancer screening. Box 1 shows the recommendation on cervical cancer screening by the Cancer Expert Working Group on Cancer Prevention and Screening.[13] If in doubt, please consult your family doctor. CSP has also established the 'Cervical Screening Information System' (CSIS) for storing data related to the CSP, including participants' personal identification data, smear results and date of next smear recommended by healthcare provider. Once registered with the CSP, participants can login to the CSIS to view their cervical smear record and would receive a reminder when the next smear is due. Participants can also authorise their healthcare providers to view their past smear records for continuous care. For more information about CSP, please visit http://www.cervicalscreening.gov.hk.

Box 1: Who needs cervical cancer screening?

For women at average risk

1. Women aged 25 to 64 who ever had sexual experience are recommended to have cervical cancer screening by cytology every three years after 2 consecutive normal annual smears.
2. Screening may be discontinued in women aged 65 or above if three previous consecutive smears within 10 years are normal.
3. Women at or above 65 years of age who ever had sex and have never had a cervical smear should have the test.

For women at increased risk

4. Women aged 21 to 24 years who ever had sexual experience and with risk factors for HPV acquisition/persistence or cervical cancer are considered at increased risk. They may be screened by cytology every three years after 2 consecutive normal annual smears, depending on doctor's assessment.
5. Other women at high risk of developing cervical cancer may require more frequent screens based on doctor's assessment.

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Community Care Fund
Free Cervical Cancer Vaccination Pilot Scheme

The Community Care Fund (CCF) launches a three-year pilot scheme to provide free cervical cancer vaccination for teenage girls from eligible low-income families, and commissions the Family Planning Association of Hong Kong (FPAHK) as the implementing agent of the pilot scheme.

Eligible beneficiaries are girls aged 9 to 18 who receive Comprehensive Social Security Assistance, and female students aged 9 or above who receive full grant under the School Textbook Assistance Scheme. Beneficiaries should note that they must be clinically assessed before vaccination. After receiving the first dose of vaccine, they must complete the remaining doses within the time period instructed by the doctor. Furthermore, beneficiaries must receive all the necessary doses of vaccine before October 2019.

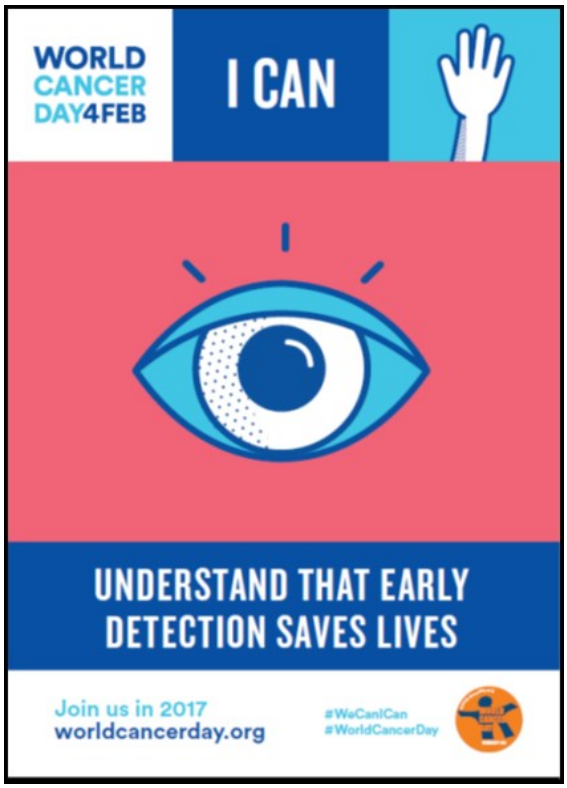
To know more about the pilot scheme and application procedures, please visit the websites of the CCF (http://www.communitycarefund.hk/en/index.asp), or FPAHK (http://www.famplan.org.hk/ccfvaccine).

For enquiries, please call the pilot scheme hotline at 2919 7878 or email ccfvaccine@fampla.org.hk.

World Cancer Day
4 February 2017

World Cancer Day is an initiative of the Union for International Cancer Control (UICC) which takes place every year on 4 February. It aims to unite the world's population in the fight against cancer.

Taking place under the tagline **'We can. I can.'**, World Cancer Day 2017 calls on everyone—as a collective or as individuals—to take actions on cancer prevention and early detection.



For more information about World Cancer Day, please visit http://www.worldcancerday.org/.

Non-Communicable Diseases (NCD) WATCH *is dedicated to promote public's awareness of and disseminate health information about non-communicable diseases and related issues, and the importance of their prevention and control. It is also an indication of our commitments in responsive risk communication and to address the growing non-communicable disease threats to the health of our community. The Editorial Board welcomes your views and comments. Please send all comments and/or questions to so_dp3@dh.gov.hk.*