Panel on Health Services

Legislative Council of HKSAR

Legislative Council Complex

1 Legislative Council Rd.

Admiralty, HKSAR

Dear Sir or Madam,

Herewith please find our position paper submission for the meeting on Cancer Strategy for the Panel on Health Services at the Legislative Council held on the 2nd of March at 9:30am.

We appreciate your consideration and look forward to the discussion

Yours sincerely,

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梁愷明
KAREN LEUNG
5 YEARS

Submission to the Legislative Council Panel of Health Services

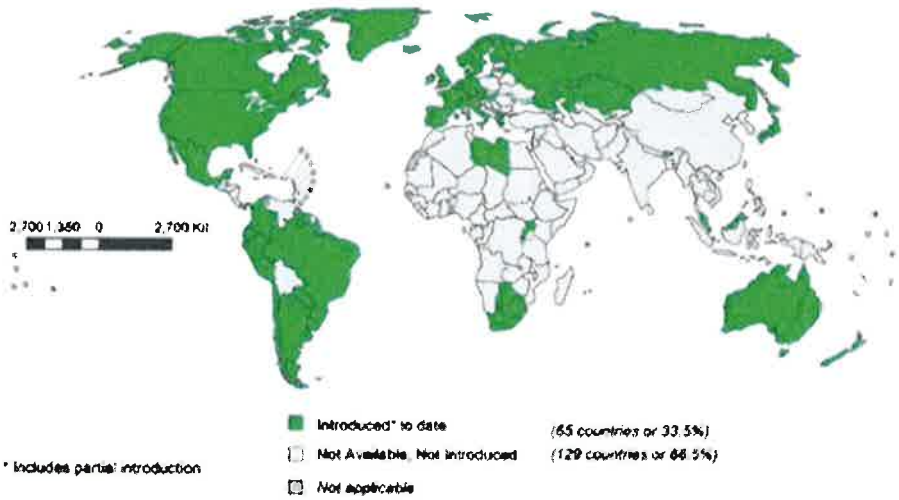
Cancer Strategy Meeting on March 2, 2018

Cervical cancer is one of the top ten (10) leading causes of cancer in women in Hong Kong. 500 new cases of cervical cancer, as well as many other cases of HPV related cancers were recorded in Hong Kong in 2015.

HPV is the only carcinogenic agent responsive to a vaccine hence we feel that the HKSAR government should favour primary prevention methods to prevent cancer over secondary or tertiary treatment methods to ensure the wellbeing of the general public in Hong Kong as well as to preserve government funds in the long run.

Human papillomavirus (HPV) is the most common sexually transmitted infection in humans, which causes a range of different conditions, the most severe being several different types of cancer in both men and women. Virtually all cases of cervical cancer (99%) are linked to infection of HPV, as well as 88% of all anal cancer, 78% of vaginal cancer, 51% of penile cancer, 15-48% of cancer of the vulva, as well as 13-60% oropharyngeal cancers are also shown to be related to HPV. As of March 2017, 71 countries globally, such as Australia, Canada, UK, and our neighbour Macau, have introduced HPV vaccines into their national immunization program for girls, and 11 countries out of those, also provides vaccination for boys.[1] (Fig. 1)[2]

Countries with HPV vaccine in the national immunization programme



WHO's new guidelines, published in 2014, recommend a vaccine schedule of 2 doses of the HPV vaccine for girls aged between 9 and 13 years old

Fig. 1

[1] WHO Weekly epidemiological record. Human papillomavirus vaccine: WHO position paper, May 2017. http://apps.who.int/iris/bitstream/10665/255353/1/WER9219.pdf?ua=1

[2] WHO Immunization, Vaccines and Biologicals. Human papillomavirus (HPV). http://www.who.int/immunization/diseases/hpv/en/

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The HPV vaccine is a safe and effective method of prevention against HPV, and therefore cervical cancer. The vaccine has demonstrated high vaccine safety ratings worldwide, and has not been associated with any proven deaths or serious health issues.[3]

The "Community Care Fund Free Cervical Cancer Vaccination Pilot Scheme" was implemented in October 2016 to provide HPV vaccination for girls in low-income families who meet the criteria of the CSSA and the School Textbook Assistance Scheme for their families.[4] As of January 2018, the Family Planning Association has vaccinated more than 10,000 girls through the pilot scheme, roughly about one-third of the program's target participation.

Our experience at KLF:

The Karen Leung Foundation (KLF) is working to save lives in Hong Kong by raising awareness of gynaecological cancer, educating women to increase rates of early detection and ensuring that women in treatment have access to optimal medical care. Founded in 2013, we are the first and only organization in Hong Kong solely devoted to women's gynaecological cancers. To date, the Karen Leung Foundation has raised more than HK$14 Million to fight gynaecological cancer and help Hong Kong girls and women.

Since 2015, we have been providing HPV vaccinations free of charge to girls in numerous schools in Hong Kong. More than two thousand five hundred girls have benefited and received the vaccination through our in-school HPV vaccination program.

Our program:

Our vaccination program includes two components, the research component and the in-school vaccination component. The research component was done in collaboration with The Chinese University of Hong Kong, through the Department of Microbiology, as well as the School of Public Health and Primary Care.

The in-school vaccination component was done in collaboration with partner schools in various areas in Hong Kong, mostly in the New Territories West, where a majority of the girls were from low-income families who do not meet the criteria or were unable to access the CCF pilot scheme.

Our research:

Two sets of questionnaires were designed to obtain information from the students and parents. The questionnaires were used to assess the knowledge of the HPV vaccine, awareness of HPV and cervical cancer, as well as their attitudes and beliefs related to the disease. Through our research, we found that cost was the biggest barrier to receiving the HPV vaccination, since the vaccine cost at least HK$3000-6000 for the full course in the private sector. Also, a lack of knowledge of the effectiveness and safety of the vaccine were noted as barriers in our research.

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[3] WHO. Global vaccine safety. Essential medicines & health products 20. Information Sheet: Observed rate of vaccine reactions, Human papillomavirus Vaccine. December 2017. http://www.who.int/vaccine_safety/initiative/tools/HPV_vaccine_rates_information_sheet_1217.pdf?ua=1

[4] Community care fund Free cervical cancer vaccination pilot scheme. https://www.famplan.org.hk/ccfvaccine/Cervical_Cancer_Vaccination.html

Our experience:

We implemented the vaccination program with the participation of school administrators and teachers. Education sessions were brought to the students and parents as part of the pre-vaccination awareness program. Through our in-school vaccination program, we were able to achieve an average uptake rate of >80% by reducing the largest barriers to the vaccine uptake, high costs and low awareness. Since the program inception in 2015, the number of beneficiaries is more than 2500 female students; aged 9-14 in NT West District, and the program continues to expand.

Cost-Effectiveness

The cost effectiveness of HPV vaccination in 179 countries has been compared in an article by WHO, which states that the reproduction of cost-effectiveness was found in 24 out of 26 countries, and in all of the 72 GAVI countries. This suggests that the HPV vaccine is highly cost effective in 87% of the 179 countries studied, demonstrated by a reduced disease burden and mortality from cervical cancer alone.

Primary and Secondary Prevention vs. Curative care

Currently, the HKSAR government health expenditure is heavily weighed on curative care. In year 2013/14, HK$41,555 (67.4%) was spent on curative care, and a mere HK$366 million (0.6%) was spent on preventive care, while a total of HK$61,611 million was spent on healthcare in the entire HKSAR. (Fig. 3).

Figure 4.1 Share of current health expenditure by function (at current market prices), 1989/90 – 2013/14

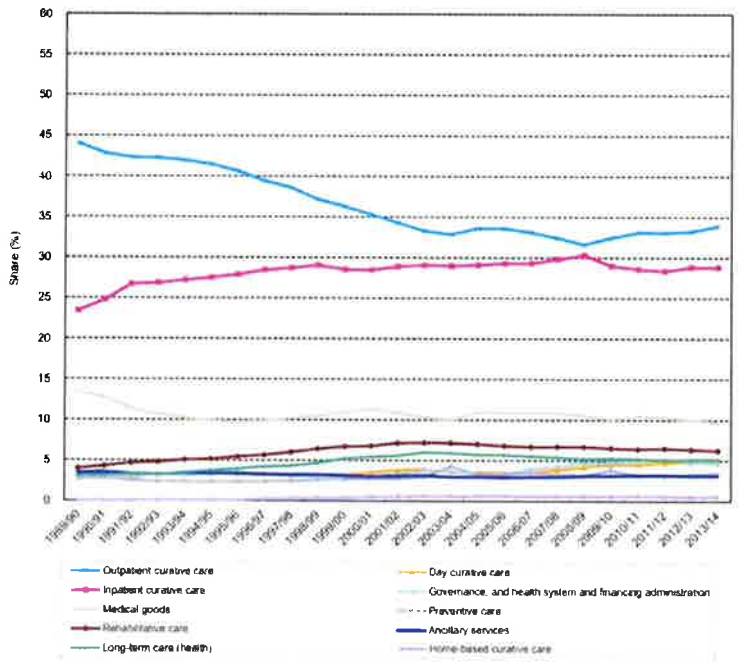

Fig. 2

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Reducing the disease burden

Patients are overloading the system as cervical cancer and other cancers related to HPV are mainly dealt with in through the hospital system at the tertiary level.

Figure 3 shows statistics of incidence of cancers that are related to HPV according to the Hong Kong Cancer Registry. If a universal HPV vaccinations program was rolled out in HKSAR, there would be huge possible reduction of incidences and cost in medical care based on the the percentage values of cancer incidents with HPV as a cause.[5]

Hong Kong Cancer Stats vs. HPV	*In 2015*		
	Incidence	*% HPV contribution*	*Numbers attributed*
Cervical	*500*	*99*	*495*
Anal	*1992*	*88*	*1752.96*
Vaginal	*85*	*78*	*66.3*
Penile	*35*	*51*	*17.85*
Oropharynx	*876*	*13 to 60*	*319.74*
	3488		*2651.85*

Fig. 3

KLF's recommendations:

Since HPV vaccine is the ONLY vaccine that is effective against a carcinogen, and we have strong evidence of the cost-effectiveness, as well as safety and effectiveness of the HPV vaccine, combined with the program feasibility in the current healthcare environment in Hong Kong, we argue that a Hong Kong wide vaccination program should be doable. We know HOW to prevent cervical cancer (as well as other HPV related cancers) thus it is unacceptable that so many women continue to suffer and die from these diseases.

To prevent cervical cancer, WHO suggests that it is best achieved through vaccination of girls prior to first sexual contact, and immunity is better achieved at a younger age. Therefore, we strongly urge the government to provide a universal in-school vaccination campaign. According to our research and our program experience, an in-school program will significantly increase the vaccine uptake rate (KLF's program uptake rate was > than 80%).

Our suggestion is that the HPV vaccination could be given in combination with the 6th grade vaccinations, which will ensure high uptake rates and reduce cost of medical personnel. (Fig.4) WHO recommends administering the HPV vaccine with the Diphtheria, Tetanus, Acellular Petrussis and inactivated Polio vaccine (dTaP-IPV) vaccine[6] for cost-saving and programmatic reason.

[5] WHO. Global vaccine safety. Essential medicines & health products 20. Information Sheet: Observed rate of vaccine reactions, Human papillomavirus Vaccine. December 2017. http://www.who.int/vaccine_safety/initiative/tools/HPV_vaccine_rates_information_sheet_1217.pdf?ua=1

Hong Kong Childhood Immunisation Programme

AGE	Immunisation RECOMMENDED
Newborn	B.C.G. Vaccine Hepatitis B Vaccine - First dose
1 month	Hepatitis B Vaccine - Second dose
2 months	Diphtheria, Tetanus, acellular Pertussis & Inactivated Poliovirus Vaccine (DTaP-IPV Vaccine) - First Dose Pneumococcal Vaccine - First Dose
4 months	Diphtheria, Tetanus, acellular Pertussis & Inactivated Poliovirus Vaccine (DTaP-IPV Vaccine) - Second Dose Pneumococcal Vaccine - Second Dose
6 months	Diphtheria, Tetanus, acellular Pertussis & Inactivated Poliovirus Vaccine (DTaP-IPV Vaccine) - Third Dose Pneumococcal Vaccine - Third Dose Hepatitis B Vaccine - Third Dose
1 year	MMR Vaccine (Measles, Mumps &Rubella) - First Dose Pneumococcal Vaccine - Booster Dose Varicella Vaccine - First Dose *
1 1/2 year	Diphtheria, Tetanus, acellular Pertussis & Inactivated Poliovirus Vaccine (DTaP-IPV Vaccine) - Booster Dose
Primary 1	MMRV Vaccine (Measles, Mumps, Rubella & Varicella) - Second Dose * Diphtheria, Tetanus, acellular Pertussis & Inactivated Poliovirus Vaccine (DTaP-IPV Vaccine) - Booster Dose
Primary 6	Diphtheria, Tetanus, acellular Pertussis (reduced dose) & Inactivated Poliovirus Vaccine (dTaP-IPV Vaccine) - Booster Dose

Fig. 4

The strategy should also include an education component, which should be conducted in all schools Hong Kong wide, as part of a health-education program, which would be directed towards reducing behaviours that increase the risk of infection. Since the HPV vaccine is a form of primary prevention, it does not eliminate the need for screening later in life. Therefore we also recommend to further the reach of a government subsidized program for cervical screening and early treatment of the disease to create a well-coordinated effort to combat HPV related cancers.

By implementing a Hong Kong wide universal HPV vaccination program, not only will we decrease the risk and cost related to cervical cancer mortality and morbidity in the long term, it will also decrease the incidence of other HPV related cancer. In turn, by performing primary prevention measures, it will decrease the stress and cost of providing medical treatment in the public hospital system.