

CONSENSUS STATEMENT ON HPV VACCINATION FOR MEN IN SINGAPORE

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INTRODUCTION

Human Papillomavirus (HPV) is a prevalent sexually transmitted infection associated with HPV-related pre-cancers, genitals warts, penile cancer, anal cancer, and oropharyngeal cancer in men. While HPV vaccination has historically targeted females, there is a growing recognition of the need to prioritise vaccination for men in Singapore. This consensus statement aims to provide a unified perspective on the significance of HPV vaccination for men in the Singaporean context, grounded in current scientific literature and local health considerations.

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HPV PREVALENCE AND IMPACT ON MEN IN SINGAPORE

HPV infection poses a significant health risk to men in Singapore, contributing to the incidence of penile (0.98/100,000), anal (1.24/100,000), and oropharyngeal cancers (1.6/100,000), as well as genital warts.¹ Globally, 31 percent of men were infected by any HPV types and 21 percent by high-risk HPV types.² The most prevalent HPV genotype was HPV 16 (5 percent), followed by HPV 6 (4 percent) globally.² An often referenced data by Khoo et al on the prevalence of oro-anogenital HPV prevalence among men in Malaysia reported an estimated HPV prevalence rate of 30 percent in men aged 18 to 60 years.³ Although the highest genital prevalence was observed in the 18-24 years age group (25 percent), which is similar to female cervical HPV prevalence pattern, genital HPV prevalence rate did not decrease and stayed similar throughout the age groups.⁴ The data indicate that the risk of acquiring new HPV infections in men remain the same in all age groups and men stay susceptible to HPV throughout their lives. Given the geographical and cultural proximity of Singapore to Malaysia, it would be logical to assume a similar prevalence rate in Singapore. Moreover, a rising incidence of oropharyngeal cancer has been observed in men globally including Japan.⁵ In the US, the incidence rates of oropharyngeal cancer in men were higher than that of cervical cancer in women in recent years.⁶ In Singapore, the incidence rate of oropharyngeal cancer in men increased between the years of 1993 to 2012 and it was five times higher in men than women from 1968-2012.⁷

Up to 90 percent of genital warts cases are caused by HPV types 6 and 11. The regional estimates of annual incidence of new genital warts ranged from 101 to 205 cases per 100,000 in North America, Europe, and Asia.⁸ The reported incidence of recurrent genital warts was as high as 110/100,000 in women while it was 163/100,000 in men.⁸

There is no routine screening available for men to prevent further progression of HPV-related diseases, and the majority of HPV infections are asymptomatic. As men who experienced natural HPV infection may not be protected from recurrent infection, vaccinating males is imperative for preventing these HPV-related diseases and improving overall public health outcomes in the local population. HPV vaccines used for men should minimally provide protection against HPV types 6, 11, 16, and 18 to protect against genital warts as well as HPV-related cancers.

HERD IMMUNITY AND COMMUNITY PROTECTION IN SINGAPORE

Vaccinating males against HPV is crucial for achieving herd immunity in Singapore, safeguarding individuals who may not be eligible for vaccination or who have yet to receive the vaccine. This is particularly significant due to the fact that the seroconversion rate in men after a HPV infection is found to be very low at 8-9 percent.⁹ Furthermore, seroconversion does not confer protection against subsequent infections, with studies reporting similar infection incidence rates among seropositive and seronegative men.¹⁰ Increasing vaccination coverage in the male population contributes to building a resilient community protected against HPV-related diseases.

PREVENTION OF TRANSMISSION IN THE LOCAL CONTEXT

Vaccinating men in Singapore is essential in breaking the cycle of HPV transmission and reducing the risk of transmission to sexual partners. This not only protects men from HPV-related diseases but also contributes to lowering overall virus transmission within the local community.¹¹ Routine HPV vaccination of men has been estimated to increase a vaccination programme's resiliency to decline in coverage compared to female-only vaccination programmes.¹² Modelling studies predict that gender-neutral vaccination programmes would reduce the prevalence of HPV 16 by an additional 18 percent in females and 35 percent in males if 40 percent of boys were vaccinated, in addition to a vaccination coverage rate of 40 percent among girls, and also result in a faster decline in the prevalence of vaccine-specific HPV types.¹³

EQUALISING GENDER EQUITY IN HEALTHCARE IN SINGAPORE

The promotion of HPV vaccination for men in Singapore aligns with the principles of gender equity in healthcare, ensuring that both males and females have equal access to preventive measures against HPV. In Singapore, women can use money from their Medisave accounts to subsidise their HPV vaccinations. HPV vaccination is also part of the National Childhood Immunisation Schedule for girls. Consequently, girls and their parents are actively made aware of and educated on HPV vaccination. This places the burden of HPV prevention overwhelmingly on females. With a gender-neutral vaccination programme, men contribute to a shared responsibility for HPV prevention.

LOCAL PUBLIC HEALTH RECOMMENDATIONS

This consensus statement recommends the inclusion of routine HPV vaccination for men in Singapore's national vaccination programme. While 55 percent of WHO Member States have introduced HPV vaccination nationwide (107/194), about a third of the programmes (33/107) have implemented gender-neutral vaccination

(both boys and girls receive the vaccine) according to WHO/UNICEF estimates in 2019.¹⁴ Healthcare providers are encouraged to educate and counsel their male patients on the benefits of HPV vaccination, emphasising its role in preventing HPV-related cancers and genital warts, and promoting overall well-being. Since 2020, HPV vaccination has been approved in Singapore for use in boys and men from the ages of nine to 45 years.

CONTINUED RESEARCH AND SURVEILLANCE

Ongoing research and surveillance are essential in the Singaporean context to monitor the long-term effectiveness and safety of HPV vaccination in males. Continuous evaluation will provide valuable insights into reducing HPV-related diseases in men and refining vaccination strategies tailored to the local population.

CONCLUSION

In conclusion, this consensus statement supports routine HPV vaccination for men in Singapore, addressing local health considerations and aiming to enhance overall community immunity, reduce the burden of HPV-related diseases, and promote gender-equitable healthcare practices. This collective effort is crucial for building a healthier and more resilient society in Singapore.

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