

Until eradication, awareness

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Mark Schiffman and Mona Saraiya¹ present an exciting vision of the longterm implications of data from Eric Chow and colleagues² showing that female human papillomavirus (HPV) vaccination reduces transmission to males, bringing forward control of HPV-associated cancers “decades faster” than previously anticipated. Although their argument is convincing, the natural history of HPV carcinogenesis³ means that, even if there is a rapid reduction in HPV transmission rates, we can still expect many decades of HPV-associated cancers. Indeed, it is probable that a number of men in Chow and colleague’s cohort² who tested negative for HPV had already entered the latent phase: transmission peaks in young adults,³ and the same mechanisms underpinning persistence also reduce virion assembly and release. Hence, the incidence of HPV-associated oropharyngeal cancer is still rising rapidly, and will overtake cervical cancer incidence in the next decade in the USA.⁴

The article rightly emphasises the benefits of herd protection achieved by vaccinating girls. These benefits will continue to accrue over many years and are dependent on continued high female vaccination coverage. Although some countries have extended HPV vaccination programmes to boys, making the case on economic grounds is very challenging where female coverage rates are high. Meanwhile, there is likely to be benefit in ensuring that both men and women are aware of HPV, how it is transmitted, and the potential longterm sequelae: education has been shown to effectively modify sexual behaviour.⁴

We did a brief survey of awareness of HPV, transmission, as well as indicator symptoms of oropharyngeal cancer among a similar patient group to Chow and colleague’s cohort, attending the Mortimer Market Centre, a sexual health clinic in London, UK (figure). 466 questionnaires were completed; 295 (63%) respondents were men. 249 participants (53%) had heard of HPV. 175 (61%) of 287 thought that HPV can be transmitted during oral sex, but only 94 (33%) of 289 were aware that HPV is a risk factor for oropharyngeal cancer, while 312 (67%) were unable to name any symptoms. No significant difference was noted in responses between men and women. Early data for the effect of current vaccination programmes is very encouraging but, for now, HPV-associated cancer burden is still rising.⁵ As the pattern of HPV-related disease changes, there is a need to increase awareness—eg, of oropharyngeal cancers, a disease for which there is no screening programme. Public health initiatives should be explored that could improve awareness and lead to earlier diagnosis and improved outcomes.

We declare no competing interests.

1 Schiffman M, Saraiya M. Control of HPV-associated cancers with HPV vaccination. *Lancet Infect Dis* 2017; **17**: 6–8.

2 Chow PF, Machalek DA, Tabrizi SN, et al. Quadrivalent vaccine targeted human papillomavirus genotypes in heterosexual men after the Australian female human papillomavirus vaccination programme: a retrospective observational study. *Lancet Infect Dis* 2017; **17**: 68–77.

3 Doorbar J. Latent papillomavirus infections and their regulation. *Curr Opin Virol* 2013; **3**: 416–21.

4 Chaturvedi AK, Engels EA, Pfeiffer RM, et al. *J Clin Oncol* 2011; **29**: 4294–301.

5 Centers for Disease Control and Prevention (CDC). Effective HIV and STD Prevention Programs for Youth: A Summary of Scientific Evidence, CS218336-A. https://www.cdc.gov/healthyouth/sexualbehaviors/pdf/effective_hiv.pdf (accessed Feb 3, 2016).

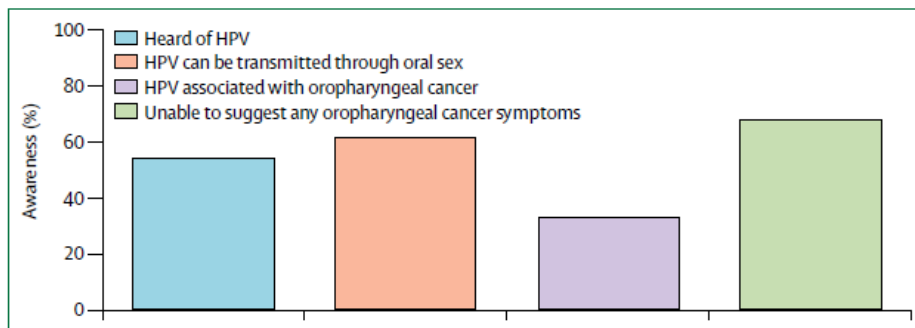


Figure: Results of a survey of awareness of human papillomavirus (HPV) from the Mortimer Market Centre, a sexual health clinic in London, UK