The Honourable Dr. Eric Hoskins, Minister of Health and Long-Term Care

80 Grosvenor Street

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Toronto, ON M7A2C4

CC: Alyson Rowe, Policy and Special Projects Advisor

June 1, 2015

RE:An expert opinion letter in support of universal andcomprehensive HPV vaccine coverage

Dear Minister Hoskins,

We, the undersigned, are writing to urge the Ontario Ministry of Health and Long-Term Care to immediately implement a publicly funded HPV immunization program for all boys and young men, with particular consideration for gay, bisexual and other MSM, as well as those living with HIV.

As concerned community members, academics, researchers, service providers and experts in the health of boys and men, gay, bisexual and other men who have sex with men (MSM), and people living with HIV, we question why Ontario has yet to implement the recommendations of both the National Advisory Committee on Immunization (NACI) and its own Provincial Infectious Diseases Advisory Committee – Immunization (PIDAC-I) to immunize males to prevent HPV-associated neoplasias and cancers.

In 2012, NACI recommended HPV vaccine for all males between the ages of 9 and 26 and for all MSM age 9 and older. In the same year, PIDAC-I recommended: “Publicly-fund Gardasil® for men who have sex with men or males who identify as homosexual up to the age of 26 years. A variety of delivery mechanisms should be considered to reach this target population (e.g. sexual health clinics, primary care practices).” These recommendations are supported by the United StatesCenters for Disease Control and Prevention, which, in March 2015, recommended HPV immunization for all boys and girls at age 11 or 12, MSM through age 26 and immunocompromised persons (including those with HIV infection) through age 26 who have not been vaccinated previously or have not completed the 3-dose series.

These recommendations are strongly supported by comprehensive scientific evidence.

HPV causes substantial morbidity inmales, MSM and people living with HIV. As the most common *preventable*sexually transmitted infection (STI), HPV has been directly linked to grave health conditions such as cervical, oral, penile and anal cancers, as well as abnormal cell growth in these areas of the body that are causally associated with various cancers, and anal warts1.

According to the World Health Organization’s International Agency for Research on Cancer, HPV is considered a “necessary cause” of all cervical cancers,2 80-90% of anal cancers, 40-50% of penile cancers, 35% of oral cancers and 25% of oral cavity cancers.3Most forms of these cancers are associated with HPV types 16 and 18, which, along with types 6 and 11, are preventable with the use of the HPV4 vaccine.The HPV9 vaccine prevents five more types of HPV. Though rates of HPV related cancers are generally lower for males than females, large population-based analyses suggest the prevalence of HPV-associated cancers among men to be 12% in the United States4 and 17% in Australia.5 Rates of HPV-associated oropharyngeal cancers are four times higher among men than women.6

Rates of HPV are disproportionately high in MSM. Numerous studies indicate that MSM are at greater risk for HPV and its associated cancers,3, 7, 8 particularly MSM who are living with HIV. HIV-positive women are also at greater risk as they are more likely to develop HPV-related cancers than non-HIV-positive women.9 A Canadian study of men attending an STI clinic in Vancouver reported 70% prevalence of HPV.10 Among MSM in San Francisco, 93% of HIV-positive and 61% of HIV-negative gay men tested positive for HPV.11 HIV-positive MSM in in Montreal12 and Toronto13 have also shown high rates of HPV. In a study of over 400 HIV-positive and HIV-negative men in Toronto, none were concurrently infected with all four or nine vaccine types from the quadrivalent or 9-valent vaccine, respectively, meaning that they could still benefit from vaccination13

HPV is associated with HIV transmission. HIV transmission has been shown to be associated with the presence of HPV. One study among women suggested that between 21- 37% ofHIV infections may be associatedwith the presence of HPV.14In addition, people living with HIV whose immune systems are compromised are at great risk of developing HPV-related cancers and thus recent recommendations from the Centers for Disease Control and Prevention in the United States call for vaccination of those living with HIV who have had no previous vaccination.15

HPV is preventable.HPV4 (Gardasil®), which has been publicly funded for 8th grade girls in Ontario for over six years,is effective at reducing rates of HPV infection and cervical cancer rates among girls and women. It is also >90% effective in reducing rates of HPV in boys and young men.16A newer vaccine, HPV9, increases the number of protected types from four to nine.

Herd immunity provided by immunizing girls will not protect gay boys and men. A common argument against expanding publicly funded HPV immunization to boys is that, by immunizing the girls, the current program is providing herd immunity for the boys. While herd immunity may occur for heterosexual boys and men if HPV vaccine coverage among girls is successfully expanded, it will not protect MSM—among those at greatest risk for HPV infection and subsequent cancers. For example, after initiating a publicly funded HPV vaccination program for girls, Australia found that rates of HPV and associated cancers decreased among young women and most young men, but remained high among MSM.17 An HPV immunization program that targets only girls neglects the health of young gay, bisexual and other MSM, and leaves them at risk of acquiring HPV and related cancers. Furthermore, studies in Canada18 and the United States19corroborate the likely insurmountable challenges of effectively targeting HPV vaccination for young gay and other MSM, as the recommended timing for HPV vaccination is before sexual debut—which is before they are likely to self-identify as gay or to report male sexual contact to their health care providers.20Given high rates of global travel, herd immunity is also probably not enough to protect heterosexual boys who could be exposed to HPV through women who come from regions that do not have mass HPV immunization programs for girls.

Publicly funding HPV immunization for boys and MSMwill save money. A research study published in April 2015, foundthat if all 12-year-old boys in Ontario had received HPV4 in 2012, the province would have saved $12-28 million by averting cancers among that cohort of young men.21 Newman and Lacombe-Duncan report that when cost-effectiveness studies include cancers other than cervical (such as oropharyngeal, penile and anal) they demonstrate higher levels of cost effectiveness. In addition, when MSM are taken into account the level of cost effectiveness is even higher, particularly if the vaccination occurs by the age of 12.20And given suboptimal HPV vaccine coverage among girls and young women, vaccinating boys further contributes to herd immunity that protects girls.20Finally, recent data suggest a two-dose vaccine may be as effective at reducing HPV transmission as the standard three-dose, which would contribute toreducing the costs of vaccination.22

A publicly funded HPV immunization program that neglects boys is inequitable. In a recent scholarly analysis and summary of the research in this area, researchers expressed concerns about the inequitable nature of the current practice to vaccinate only girls, stating “From a health equity perspective, targeting women and girls for vaccination conveys and reinforces the message that HPV-related diseases are limited to women, stigmatizes young women, negates the importance of men’s health and discriminates against men who have sex with men.”20A health equity stance suggests that all individuals should have the right to be vaccinated against a virus that has been linked to such dire health outcomes. Ontario’s commitment to equity in health care demands that the ministry urgently address this gap in STI prevention.

A Call to Action to provide Gardasil to boys, MSM and people living with HIV

We urgeyou and the Ministry of Health and Long-Term Care to immediately address this urgent public health concern by expanding the publicly funded HPV immunization programs to include boys, MSM and people living with HIV. Three other provinces – Alberta, Nova Scotia and Prince Edward Island -- already fund HPV vaccine for boys.Our call is supported by important professional societies including the Society of Obstetricians and Gynecologists of Canada,23 the Canadian Cancer Advocacy Coalition,24 Toronto Public Health,25 the National Advisory Committee on Immunization,26and the Ontario Provincial Infectious Diseases Advisory Committee on Immunization.27

We believe expanding HPV immunization will substantially reduce the burden of HPV-related cancers among all Ontarians – male and female.

**In our view, HPV immunization is such a critical issue for gay boys and men and other men who have sex with men, we will be launching a highly visible public awareness and education program for gay men at Toronto Pride (June 19-28, 2015).We would be pleased to provide a platform at that time for you to announce Ontario’s commitment to expand its publicly funded HPV immunization program to protect the province’s boys and men.**

To help with our planning, we would appreciate receiving a response to our letter by June 20, 2015. Please consider Dr. Brennan, Dr. Adam and/or Mr. Maxwell the primary contacts.

Yours sincerely,

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