Prevalence of Oral HPV Infection in the United States, 2009-2010

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HPV is the cause of a distinct form of oropharynx cancer that is rising in incidence in the US, largely among young men.

Oral HPV16 infection confers an ~14-fold increase in risk of oropharynx cancer.

Little is known about the epidemiology of oral HPV infection.

This study was designed to estimate the prevalence of oral HPV infection in the US population and to determine factors associated with infection.
STUDY DESIGN

- Cross-sectional study in NHANES 2009-2010 by NCHS/CDC
- Represent the civilian, non-institutionalized U.S. population
- 5,579 men and women aged 14-69 years
- Oral rinse and gargle collected
- Demographic and behavioral data collected by interview and computer-based questionnaire
FINDINGS

- Seven percent of the U.S. population aged 14-69 years have an oral HPV infection.
- One percent had an oral HPV16 infection - corresponding to ~2.13 million infected people.
- Infection was more common among older men and current smokers and was more common as number of sexual partners increased.
- Infection was 3-fold more common among men.
IMPLICATIONS

- The 3-fold higher prevalence among men likely explains the 3-fold higher rates for HPV-caused oropharynx cancers among men.

- The strong link observed between sexual behavior and infection indicates non-sexual transmission is likely unusual.

- This study is the first step toward development of prevention and screening strategies for this type of cancer.

- Studies to evaluate the ability of HPV vaccines to prevent oral HPV infection would further inform potential benefits of HPV vaccination among men.