Rethinking the Head and Neck Cancer Population:
The Human Papillomavirus Association

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Head and neck squamous cell carcinoma (HNSCC) is the tenth most commonly diagnosed form of cancer in males worldwide. Although the incidence of HNSCC is relatively low in the United States, the affected population is changing from older males to young Caucasian males. High-risk strains of the human papillomavirus (HPV) already are associated with cervical, oral, and anal cancers; however, HPV DNA has been detected in about a third of head and neck malignancies. Nurses play major roles in educating the public and treating patients with HPV and HNSCC. Many possibilities for outreach and research exist that could decrease HPV and HNSCC rates.

During the early 1980s, the incidence of head and neck squamous cell carcinoma (HNSCC) in the United States was decreasing. Because the decrease corresponded with decreases in smoking, many experts considered HNSCC to be related to tobacco use and, therefore, preventable (Westra, 2009). Historically, older males with multiple comorbidities who drank excessive amounts of alcohol and smoked cigarettes were more prone to developing HNSCC (Lowry, 2009).

As of 2008, HNSCC was the tenth most commonly diagnosed form of cancer in males worldwide (Jemal et al., 2011). An estimated 650,000 new cases of HNSCC are diagnosed worldwide each year (Westra, 2009). In the United States, however, HNSCC accounts for less than 3% of newly diagnosed malignancies and approximately 1% of cancer-related deaths (Bernstein & Klausner, 2008). According to the most current statistics from the Centers for Disease Control and Prevention ([CDC], 2009), an estimated 9,000 males and 2,300 females develop head and neck cancer each year. Although the incidence of HNSCC is relatively low in the United States, the incidence of human papillomavirus (HPV)–associated HNSCC has increased (Marur, D'Souza, Westra, & Forastiere, 2010) and HPV DNA has been detected in about 35% of head and neck malignancies (Lohavanichbutr et al., 2009).

At a Glance

- The strongest association between human papillomavirus (HPV) and head and neck squamous cell carcinoma (HNSCC) occurs in the tonsils within the oropharynx.
- HPV-associated HNSCC has been detected in patients with five or fewer lifetime oral-genital sex partners.
- The incidence of HPV-associated HNSCC is expected to increase.

According to Lowry (2009), young Caucasian males who are well-educated and otherwise healthy are now developing HNSCC. As a result, many HNSCC experts predict that the incidence of HPV-associated HNSCC will continue to increase in the United States (Gillison, 2008).

Human Papillomavirus and Cancer

Often acquired in the early years of sexual activity, HPV is a common sexually transmitted infection (see Figure 1). According to the CDC (2009), 20 million Americans are believed to be

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