Disparities in Knowledge and Awareness of Human Papillomavirus and Human Papillomavirus-Related Cancers Among Sexual Minorities in the United States, 2017-2020

Introduction: Human Papillomavirus is the most common sexually transmitted infection, with its highest prevalence among young adults. It is implicated as the cause of penile, anal, oral, and cervical cancers. It is a vaccine-preventable infection, but vaccination uptake rates remain low. Knowledge and awareness of HPV can reduce and prevent HPV-related cancers. Sexual minorities are less likely to be screened and have a higher risk of contracting HPV and HPV-related cancers. However, most HPV interventions and research focus on heterosexuals.

Methods: A retrospective analysis of HINTS-5 (2017-2020) data assessed the knowledge and awareness of HPV and HPV vaccination among sexual minorities. Regression models estimated the incidence rate ratio (IRR) of HPV awareness, HPV vaccine awareness, and knowledge of HPV-related cancers. Weighted analysis was performed.

Results: Awareness of HPV has gradually increased from 2017 to 2019, with a slight decrease in 2020 (19.5%). Similarly, awareness of the HPV Vaccine increased from 2017 to 2020, with a notable increase from 14.8% in 2019 to 20.3% in 2020. The prevalence of knowledge on HPV-related cancers remains low except for cervical cancer. Individuals most likely to be aware of HPV were men (aIRR=1.15, 95%CI 1.12-1.18, p <0.001), ages 18-34 (aIRR=0.78, 95%CI 0.74-0.81, p <0.001). From 2017-2020, the rate of knowledge on HPV-related cervical cancer increased by 3%. Non-Hispanic Blacks knew more about HPV-related oral cancer (aIRR=1.04, 95%CI 1.01-1.07, p=0.007).

Conclusion: While sexual minorities may exhibit higher levels of awareness about HPV in certain areas, such as HPV vaccine awareness, there remains a need for comprehensive education initiatives to ensure equitable access to information across all segments of the population.