Identifying predictors of human papillomavirus (HPV) vaccine acceptance in the male population of White County, Arkansas

Based on previous survey data, there is a consensus among healthcare and community leaders in White County, Arkansas for the need to increase public awareness of HPV. The purpose of the present survey study was to identify predictors of HPV vaccine acceptance in the male population of White County, Arkansas. Based on the predictors, targeted educational tools will be developed to increase male vaccination rates in White County ultimately impacting community health outcomes by decreasing HPV transmission and incidence of genital warts.

A Harding University College of Pharmacy student research group created surveys to assess the extent of knowledge of HPV infections and transmission among the male population throughout the county. Local barbershops and salons as well as bookstores, video and game rental businesses in White County, Arkansas were used to target age appropriate males 9-26 years of age to complete the surveys. The surveys assess the level of awareness of HPV, the vaccine, genital warts, and cervical cancer as well as the underlying factors that trigger the increase in HPV infection incidence in White County. Young men living under the poverty level, in socioeconomically underserved areas and without a high school education often lack access to both HPV education as well as preventative vaccination. Therefore, utilizing the data from the surveys, appropriate educational tools will be developed to encourage vaccinations as well as determine the most appropriate and convenient point of care locations for male patients.

Survey analysis of 51 males was conducted to determine their basic knowledge about HPV transmission and infections. Of the males surveyed 94% did not know that White County has the second highest incidence of cervical cancer in Arkansas. It was also determined that 82% perceived HPV vaccine to be effective in preventing genital warts in men. Alternatively, 69% did not know men could be asymptomatic carriers, indicating the need for education about transmission of HPV.

Additional survey analysis was performed to identify participants interested in receiving the HPV vaccination. Household income was a significant predictor of participant interest in vaccination (Wald Chi-Square 20.7, p<0.0001). Participants in the lowest income categories were less interested in vaccination than higher income groups. However, when lower income participants were asked about their interest in free vaccination, they expressed significantly higher interest compared to their initial response (Wald Chi-Square 6.4, p = 0.01). The data indicates males with household incomes of $50,000 or less consider HPV vaccine prohibitively expensive. Insurance was not a significant predictor of vaccine interest. Level of education (p = 0.14), ethnicity (p = 0.50) and age range (p = 0.55) did not contribute significantly as predictors of participant interest in vaccination.

The study indicates that males in White County lack knowledge related to HPV transmission and its link to genital warts. It also identifies that vaccine cost was the most significant predictor on willingness to be vaccinated among males that fell into a lower income category. However, these men were significantly more agreeable to vaccination if offered for free. The data gathered from this study will be utilized to create educational tools and programs that can have a positive impact on community health in White County, Arkansas.