

Optimising HPV vaccination communication to adolescents: a discrete choice experiment

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Abstract

Background: Human Papillomavirus (HPV) vaccine coverage is below 30% in France, despite proven effectiveness on the prevention of HPV infections, precancerous and cancerous cervical lesions. WHO recommends the use of social marketing tools to mitigate vaccine hesitancy. Using a discrete choice experiment (DCE), we aimed to identify optimal statements regarding characteristics of the vaccine and vaccination programme for optimised vaccine promotion.

Methods: French girls and boys enrolled in the last two years of middle school (aged 13-15 years) in a sample of middle schools in three French regions participated in an in-class cross-sectional self-administered internet-based survey. In ten hypothetical scenarios, participants decided for or against signing up for a school-based vaccination campaign against an unnamed disease. Scenarios included four main attributes with different levels: the disease against which the vaccine protects, vaccine safety, potential for indirect protection, and information on vaccine uptake among peers, with the addition of a reference to sexual transmission.

Results: Overall, 1,458 adolescents (estimated response rate = 89.4%) participated and theoretically accepted vaccination in 80.1 % of scenarios. All attributes significantly impacted theoretical vaccine acceptance. Compared to a febrile respiratory disease, protection against cancer was motivating (odds ratio (OR) 1.29, 95%CI: 1.09-1.52), but

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not against genital warts (OR 0.91, 0.78-1.06). Compared to risk negation (“vaccine does not provoke serious side effects”), reference to a positive benefit-risk balance with a confirmed side effect was strongly dissuasive (OR 0.30, 0.24-0.36), while reference to ongoing international pharmacovigilance without any confirmed effect was not significantly dissuasive (OR 0.86, 0.71-1.04). The potential for indirect protection motivated acceptance among girls but not boys (potential for eliminating the disease compared to no indirect protection, OR 1.57, 1.25-1.96). Compared to the notion of “insufficient coverage”, reporting that “>80% of young people in other countries got vaccinated” motivated vaccine acceptance (OR 1.94, 1.61-2.35). The notion of a sexually transmittable infection did not influence acceptance.

Conclusion: HPV vaccine communication to adolescents can be tailored to optimise the impact of promotion efforts.

Keywords: HPV, France, adolescents, DCE, vaccination, communication