

## HPV Vaccine Is Widely Available, but Many Doctors Do Not Recommend It for Young Adolescents

Most pediatricians and family physicians offer the human papillomavirus (HPV) vaccine, but not all such physicians strongly endorse the federal recommendation to vaccinate female patients aged 11–12, according to a 2008 survey.<sup>1</sup> Some 56% of pediatricians and 50% of family physicians who administer the vaccine reported strongly recommending it for 11–12-year-old patients. Financial concerns, followed by parents' concerns, were cited as the main barriers to vaccination. Among all participants who administer the vaccine, factors associated with not strongly recommending it for 11–12-year-old patients included believing that it is necessary to first discuss sexuality (risk ratio, 1.3) and reporting that parents are less likely to refuse to have their children vaccinated at ages 16–18 (2.1).

In January–March 2008, 18 months after the HPV vaccine was licensed in the United States, researchers administered an Internet-based survey to a nationwide network of primary care physicians recruited from two major physicians' associations. Participants were sampled to ensure similarity (in terms of region, urban or rural location, and practice type) with the memberships of the associations from which they were recruited. The researchers collected data on demographic characteristics, practice attributes, knowledge about HPV, and attitudes and opinions related to the HPV vaccine from 349 pediatricians and 331 family physicians.

About half of participants were male (51% of pediatricians and 56% of family physicians); the majority worked in urban areas (88% and 72%, respectively) and in private practices (86% and 80%). Nearly all pediatricians (92%) and 77% of family physicians performed fewer than five gynecologic examinations on women younger than 18 per month. Most respondents reported feeling comfortable discussing sexuality with female adolescent patients (84% and 89%, respectively).

Ninety-eight percent of pediatricians and 88% of family physicians reported that the HPV vaccine was being administered at

their offices. Most of these participants recommended it for 11–12-year-old female patients: Among pediatricians, 56% strongly recommended it, and 38% recommended it, but not strongly; among family physicians, the corresponding proportions were 50% and 43%.

More than three-quarters of participants correctly answered most true-or-false questions about HPV and the HPV vaccine. However, only 43% of pediatricians and 58% of family physicians were aware that genital warts and cervical cancer are caused by different strains of HPV. Eighty-six percent of pediatricians and 69% of family physicians knew that a pregnancy test is not required before the HPV vaccine is administered.

Forty-two percent of pediatricians and 54% of family physicians believed it is necessary to discuss sexuality with patients prior to administering the HPV vaccine. While only 4–6% of respondents reported believing that vaccination might encourage early or risky sexual behavior among adolescents, 41–46% reported that parents of adolescent patients have this concern.

Both groups of physicians cited financial barriers, including issues of insurance coverage and reimbursement and the cost of providing the vaccine, most frequently as perceived obstacles to HPV vaccination. For example, 47% of pediatricians and 64% of family physicians reported some insurance companies' failure to cover the vaccine as a barrier. In addition, 32% of pediatricians and 25% of family physicians cited parents' concerns about the safety of the vaccine; 23% and 33%, respectively, cited parents' moral or religious opposition; and 23% and 30% cited parents' concerns that the vaccine might encourage early or risky adolescent sexual activity.

Among family physicians, the HPV vaccine was more commonly administered by female than by male participants (95% vs. 83%), and by those in the Midwest, Northeast and West than by those in the South (89–95% vs. 79%). Because nearly all pediatricians

provided the vaccine, such comparisons were not valid for this group). Some 25–38% of all participants reported discussing the vaccine with adolescent patients and their parents for at least five minutes; while discussing the vaccine, 94–96% of participants reported strongly emphasizing the prevention of cervical cancer, 34–35% strongly emphasized the prevention of genital warts in the patient and 9–11% strongly emphasized wart prevention among the patient's sex partners. Two-thirds of participants reported conducting no reminder activities to ensure that patients return to receive all three doses required for immunization.

Eighteen percent of pediatricians and 29% of family physicians reported that at least one-fourth of parents refused to have their 11–12-year-old daughters vaccinated; 45–49% of participants reported that at least one-fourth of parents of patients in this age-group opted to defer vaccination. Refusal and deferral were less frequently reported for parents of 13–15-year-olds.

In a multivariate analysis, physicians' odds of not strongly recommending the HPV vaccination for 11–12-year-old female were elevated if they considered it necessary to discuss sexuality before recommending it (risk ratio, 1.3), were concerned with the time it takes to discuss the vaccination with parents (1.3) and reported that parental refusals are more common among younger patients than among 16–18-year-olds (2.1). Physicians reporting that at least 25% of their patients receive public health insurance had a lower risk of not strongly recommending the vaccine than did those who said that fewer than 10% of their patients receive such insurance (0.6).

The researchers point out several limitations to their study, including that although the sample is representative of physicians in the medical associations from which they were recruited, they may not reflect provider attitudes generally; and that the attitudes themselves may not have been clearly defined (i.e., that a "strong vaccination recommendation" might be different coming

from different physicians). They conclude that “although widespread availability of HPV vaccine in primary care offices should facilitate immunization delivery to targeted patient populations,...HPV vaccination often may not be started until after 12 years of age.” The researchers indicate that “continued and expanded use [of the HPV vaccine] may depend in part on practice-level financial considerations” and may require providers to develop better systems for reminding adolescent patients to complete the three-dose immunization regimen.—*H. Ball*

**REFERENCE**

1. Daley MF et al., Human papillomavirus vaccination practices: a survey of US physicians 18 months after licensure, *Pediatrics*, 2010, 126(3):425–433.