## HPV Vaccine Chat: Urge Parents to Talk About Sex

BY SUSAN LONDON

iscussions about the human papillomavirus vaccine may be a key opportunity for providers to encourage parent-child communication about sex, suggests a cross-sectional study.

Mothers were six times more likely to have talked about sex with their adolescent daughter if her provider had discussed the human papillomavirus (HPV) vaccine with them and included topics pertaining to sexual health and development. However, there was no such association when the discussion did not include those topics.

The study's findings "suggest that ... HPV discussions could be an effective way to promote communication among parents and their children," lead investigator Annie-Laurie McRee commented at the annual meeting of the Society for Adolescent Health and Medicine in Seattle. "Heath care providers who see young adolescents can play an important role in providing information to promote communication, and we may be able to capitalize on HPV vaccine discussions to do so."

Some providers worry that linking the vaccine with sex may actually work against its uptake, she acknowledged. But additional results suggested that mothers were more satisfied with the quality of care when their daughter's provider brought up sex and that doing so did not influence vaccine uptake. Hence, broaching the topic "might not be the detriment that many of us would be concerned about."

Parent-child communication about sex

is associated with a reduction in risky sexual behaviors during adolescence, noted Ms. McRee, a doctoral student in the department of maternal and child health at the University of North Carolina at Chapel Hill.

These conversations are most effective if they take place before the child starts having sex, but recent research suggests that parents miss that critical mark 40% of



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the time. "This really points to the need to find ways to promote parent communication with younger adolescents and preteens," she said. "The HPV vaccine could offer a way to do this: Basically, because HPV is a sexually transmitted infection (STI), it may be a natural cue or a prompt for parents and health care providers to start conversations about sexual health and STI prevention."

She further noted that the vaccine is already widely recommended, most parents intend to vaccinate their daughters, and the recommended timing of vaccination, at age 11 or 12 years, "dovetails nicely" with the optimal time to start having these important talks. Also, "since HPV vaccine

is delivered in three doses over the course of 6 months, it may provide multiple opportunities to build on conversations and to promote communication that doesn't just happen early, but is continual."

In the context of the UNC Mother-Daughter Communication Study, Ms. McRee and her coinvestigators conducted an Internet survey in December 2009, polling a nationally representative sample of mothers of girls aged 11-14 years about their communication with providers and daughters regarding HPV and sex. The 902 responding mothers were 42 years old, on average. The majority were non-Hispanic white (64%) and married or living with a partner (81%). In all, 30% had a college degree, and 20% resided in a rural area. The daughters were nearly equally divided across the ages studied, and 30% had received at least one dose of the HPV vaccine. Their mothers said 7% were possibly already sexually active.

Study results showed that 55% of mothers reported that their daughter's provider had discussed the HPV vaccine with them (usually without including sex topics). This value "is far less than we like to see, because talking about the vaccine really is a necessary precursor in most cases for daughters to receive the vaccine," Ms. McRee said. Mothers may have forgotten that the topic was broached, or some daughters may have not yet turned 11 or 12 at their most recent visit, she said. "However, if we did look at just the 13- to 14-year-olds, still, over a third [of mothers] reported that a health care provider had

never discussed HPV vaccine with them."

Just 19% of mothers said that the provider had ever encouraged them to talk with their daughter about sex. But 31% indicated that it would be helpful if providers gave them information on how to do so, the majority of whom thought that yearly checkups or HPV vaccine visits would be a good time for providing this information. In adjusted analyses, compared with mothers who reported no provider discussion about the HPV vaccine, mothers who reported that such discussion had occurred and had included sex topics were more likely to have talked about sex with their daughter, both in the context of talking with her about the vaccine (odds ratio, 3.3) and at any time (odds ratio, 6.2).

In contrast, mothers who reported that the provider discussed the HPV vaccine with them but did not include sex topics were not significantly more likely to have talked with their daughter about sex.

"We need to find multiple ways to promote parents in talking with their children about sex," Ms. McRee concluded. "Clearly, HPV vaccine discussions are not the only opportunity for health care providers to broach this topic or for parents to broach topics related to sexuality with their daughters. But they are a reasonably acceptable opportunity, and a potentially effective one, at an age when such conversations can be most influential."

Ms. McRee reported she had no relevant financial conflicts. Two of her coinvestigators have received funding from Merck and GlaxoSmithKline.

## HPV's Sexual Associations May Be Barrier to Vaccinating Boys

BY SUSAN LONDON

Efforts to promote vaccination of boys against human papillomavirus may be more successful if they deemphasize infection-related outcomes that make parents uncomfortable because of their sexual associations, according to a study of 158 parents of boys.

Surveyed parents were less likely to intend to vaccinate their son if they ranked anal cancer or oropharyngeal cancer as the most severe possible outcome of human papillomavirus (HPV) infection, according to Abigail C. Lees, a research assistant in the pediatrics department at the University of North Carolina, Chapel Hill.

Comments made in focus groups suggested that these cancers elicited negative emotions: stigma in the case of anal cancer because it was associated with anal sex and homosexuality, and anxiety in the case of oropharyngeal cancer because it was associated with oral sex.

"Parents seemed to dwell on the sexual transmission of HPV," commented Ms. Lees. "HPV awareness campaigns should decrease emphasis on outcomes that elicited either stigma associated with anal cancer or increased anxiety associated with oral cancer, and instead focus on prevalence," she recommended. "Furthermore, the parental preoccupation with the sexual transmission of HPV could be entirely avoided by vaccinating children at younger ages, when parents are less likely to associate stigmas or anxiety with their child's behavior and the vaccine."

A quarter of the HPV-associated cancers that occurred in 2009 were in males, according to Ms. Lees.

To assess parental knowledge about male HPV outcomes and attitudes about vaccinating sons, the investigators recruited to their study parents of boys aged

11-17 years from a pediatric clinic, university listservs, craigslist, and other venues. They completed surveys asking about perceived susceptibility (at least a 40% chance) of their son experiencing HPV infection and its outcomes, and perceived severity of the outcomes. They also participated in single-sex focus groups, conducted separately in English and Spanish.

The majority of the parents, 72%, were the boy's mother. By race/ethnicity, 54% were white, 23% were black, 15% were Hispanic, and the rest were other. About a third had a high school diploma or less education. Slightly more than half were currently married. And 61% also had a daughter.

"Overall, parents believed their sons to have a low susceptibility to HPV infection and its outcomes," Ms. Lees reported. Just 22% thought their son was susceptible to infection. And smaller proportions thought he was susceptible to genital warts (18%), oropharyngeal cancer (11%), anal cancer (9%), and penile cancer (9%).

However, 82% of parents believed the consequence of HPV infection in their son would be severe; of these, 31% ranked penile cancer as the most severe possible outcome, 30% oropharyngeal cancer, 23% anal cancer, and 16% genital warts.

Eighty-three percent of parents indicated that they intended to vaccinate their sons against HPV. In a multivariate analysis, parents were more likely to intend to do so if they were older (odds ratio 1.14) and believed that the consequences of HPV infection could be severe (OR

9.94). On the other hand, they were less likely to intend to vaccinate if they were more educated (OR 0.62). And there were trends whereby they were less likely to intend to do so if they ranked anal cancer or oropharyngeal cancer as the most severe possible outcome (OR 0.25 and 0.67, respectively).

"The most striking finding from our focus groups was that parents had very limited knowledge of HPV infection in males, despite an awareness of HPV in females," commented Ms. Lees. For example, parents were often unaware that HPV infection pertained to boys. Their comments also provided some insight into why high rank-

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ings of certain HPV-related outcomes might have been associated with lower odds of intending to vaccinate.

"Parents responded to the sexual nature of transmission, in particular, in focus groups, which revealed parental stigmatization of anal cancer by association with homosexuality among males," she said at the annual meeting of the

Society for Adolescent Health and Medicine in Seattle.

In addition, "parents expressed an anxiety associated with oral sex practices they perceived youth to be engaging in," Ms. Lees elaborated. "Parents alluded to the frequency of oral sex among youth" and expressed "concerns that youth believe oral sex can be used to avoid infidelity, is safer than intercourse, and preserves their virginity."

Ms. Lees reported that the investigators received grant support from Merck to conduct the study.