

Millions In U.S. Infected With HPV

Study Finds Virus Strikes a Third of Women by Age 24

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More than one-third of American women are infected with human papillomavirus (HPV), which in rare cases can lead to cervical cancer, by the time they are 24 years old, according to a study being published today.

The new estimates suggest that there are 7.5 million girls and women 14 to 24 years old infected with the microbe -- about two-thirds more than an earlier but less comprehensive study had found.

Overall, about one-quarter of women under age 60 are infected at any given time, making HPV by far the most common sexually transmitted disease in the country.

News of the higher-than-expected prevalence of HPV infection was balanced by the discovery that only 2.2 percent of women were carrying one of the two virus strains most likely to lead to cervical cancer -- about half the rate found in previous surveys.

The lead researcher cautioned the findings do not mean that HPV infection rates are rising, only that they are higher than previously thought.

"For us, it's just a different measurement -- and a more accurate one," said Eileen F. Dunne, a physician and epidemiologist at the Centers for Disease Control and Prevention.

The estimate comes from the federal government's ongoing National Health and Nutrition Examination Survey, which provides the clearest snapshot of the U.S. population's health through dozens of measurements, laboratory tests and survey questions.

The new findings, published in today's Journal of the American Medical Association, are likely to further encourage use of a vaccine against HPV approved in June by the Food and Drug Administration for females 9 to 26. Its maker, Merck, until recently was lobbying state legislatures to mandate vaccination of middle-school girls -- a step that more than 18 states are moving toward.

In its just-completed session, Virginia's General Assembly enacted legislation, which is now before the governor, requiring the vaccine in schoolgirls. Texas's governor earlier this month issued an executive order doing the same thing.

"Our perspective is that many women would benefit from the protection that [the vaccine] would provide," said Richard M. Haupt, the executive director for medical affairs at Merck Vaccines. The company is running studies trying to prove the vaccine's usefulness in women 25 to 45, and also in boys and men 9 to 23.

Some parents have objected to school mandates for HPV vaccination of girls, arguing that because the infection is transmitted only through sexual contact, it can be avoided by choice. Others believe the vaccine may lower inhibitions against sexual activity, although there is no evidence that fear of HPV infection is a reason many teenagers abstain.

There are dozens of strains of HPV, but only some can lead to cancer. Two -- HPV-16 and HPV-18 -- are responsible for about 70 percent of cervical cancers worldwide. The Merck vaccine protects against

both, as well as two other strains that cause genital warts.

Most of the time a woman's immune system clears the virus within weeks, although repeated reinfections are possible. In some cases, however, the virus becomes incorporated in cervical cells and can cause malignant changes.

Cervical cancer was once the leading cause of cancer death in American women. Routine screening with Pap smears has reduced deaths dramatically in the last three decades. Last year, there were about 9,700 new cases of cervical cancer in the United States and 3,700 deaths. About 85 percent of the women who died had never had a Pap smear.

Worldwide, cervical cancer is responsible for about 235,000 deaths a year, but only 17,000 occur in industrialized countries.

In the 2003-2004 round of the national health survey, about 2,000 females aged 14 to 59 submitted self-collected vaginal swabs. Laboratory testing detected HPV in 27 percent of them. In the 14-to-24 age group, the rate was 34 percent. The highest prevalence -- 45 percent -- was in women age 20 to 24.

HPV also infects boys and men, in whom it can cause genital warts and anal cancer. Males were not tested in the survey, although researchers are trying to come up with ways to do that, Dunne said.

An earlier study of college students found that more than 50 percent acquired HPV within four years of first sexual intercourse. In the new survey, HPV infection was more likely in women under age 25, in unmarried women, and in women with two or more partners, especially in the year before testing.

The Merck vaccine is a three-shot course costing about \$360. The committee that advises CDC on vaccine policy recommended its routine use in 11- and 12-year-old girls to protect them against the four strains before they become sexually active.

Although infection produces antibodies, they do not appear to prevent future reinfection, said Lawrence R. Stanberry, a vaccine researcher at the University of Texas Medical Branch in Galveston.

"This is a situation where the vaccine really looks like it provides much better immunity than what you would get if you allowed yourself to become naturally infected," he said.

Whether the immunity will last a lifetime is uncertain. Preliminary evidence suggests it may start to dwindle after five years. A vaccine being developed by GlaxoSmithKline, which targets only HPV-16 and HPV-18, contains an antibody-boosting "adjuvant" that may provide longer-lasting immunity.

Merck, which sells its product under the trade name Gardasil, has been lobbying for laws requiring the vaccine for schoolgirls. After criticism from politicians and editorial writers, it recently said it will stop doing so.

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