

Combating *the* virus linked *to* cervical cancer



As an epidemiologist, Jennifer S. Smith, PhD, looks for risk factors that affect our health. As a behavioral scientist, Noel Brewer, PhD, tries to understand how people make health decisions. From those different perspectives, both researchers provide important weapons in the fight against cervical cancer.

Every year, about 12,000 women in the United States are diagnosed with cervical cancer. Almost 4,000 women die from this disease every year. It is among the most treatable of cancers – but only if it is caught early. Effective screening tools – the pap smear, for instance – are available, and today, vaccines

against human papillomavirus (HPV) and HPV testing for improved diagnosis holds a new promise to prevent the cancer.

Recent findings by Smith, a research associate professor of epidemiology at UNC's Gillings School of Global Public Health, have demonstrated the strong link between HPV

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– UNC Assistant Professor Noel Brewer

and cervical cancer. She and other researchers have conducted global meta-analyses demonstrating that HPV is the primary cause of cervical cancer, and an important cause of anal, penile, vaginal and vulvar cases. Dr. Smith also scrutinized 41 studies involving 22,500 women and found that persistent HPV infection was consistently associated with an increased risk of cervical cancer.

Smith's research, of course, bolsters the case for vaccination. Yet many young women aren't getting it. That's where collaboration between Drs. Brewer and Smith comes in.

Brewer, assistant professor of health behavior and health education, and Smith recently worked together with the CDC in five North Carolina counties – Duplin, Harnett, Wayne, Sampson and Cumberland – to interview parents of young girls about the perceived barriers to getting the HPV vaccine. Parents who were most likely to get their daughters vaccinated against HPV were those who expressed regret at the thought that their daughter might develop later cervical cancer.

Brewer, Smith, and colleagues found that if parents saw barriers to getting the vaccine – for instance, if they didn't know where to get it or whether their insurance would cover it – they were much less likely to get it. One-third of health care providers in those counties, Brewer found, did not have the vaccine. They also learned that people who identified themselves as born-again Christians were half as likely to get their daughters vaccinated. “We may need to think of them as a risk group, and a group we need to reach out to,” Brewer says.

In June, when the South-Central Partnership for Public Health, a coalition of county public health departments, Dr. Brewer and colleagues rolled out a public-relations campaign for the vaccine, the materials included pictures of mothers and daughters and the words: “You have hopes and dreams for your daughter, and they don't include cervical cancer.”

Since August, Smith, Brewer and Allen Rinas also have been working to increase cervical cancer screening by offering home HPV testing to women in North Carolina who have not had cervical screening in the past four years. Brewer's work “helped us clarify important components of our message,” says Heather Gates, a Gillings School of Global Public Health graduate and public health consultant who heads the project, which is designed to inform parents in counties with the highest rates of cervical cancer.

Smith and Brewer, who come from different fields but have common goals, are working together and are excited about the promise of the vaccine to save women's lives. “Elimination of cervical cancer is certainly a possibility in the future,” Smith says.

But it continues to be a cancer of disparities, one that more often affects women of lower socio-economic status. Minority women and rural women are much more likely to die of cervical cancer than other women, a fact they both find unacceptable.

“In America, there's no excuse for anyone dying of cervical cancer,” Brewer says. “This is a cancer we can conquer.” ■

– *By Sylvia Adcock*

MORE INFORMATION:

- HPV Vaccine Project: www.hpvvaccineproject.org
- American Cancer Society: www.cancer.org (choose “cervical cancer” under the cancer topic option)
- National Cancer Institute cervical cancer home page: www.cancer.gov/cancerinfo/types/cervical