Cervical cancer is one of the most common cancers in women -- about 10,000 diagnoses are made each year in the U.S. and about 500,000 worldwide. If cervical cancer were eliminated, approximately 3,700 lives in the U.S. and 250,000 lives worldwide would be saved each year (see http://www.cancer.gov/clinicaltrials/results/cervical-cancer-vaccine1102 [1]). Researchers from two pharmaceutical companies believe that this goal is within reach.

The Merck and GlaxoSmithKline corporations have been working on two competing vaccines (Gardasil and Cervarix) for the human papillomavirus HPV, a sexually transmitted virus that can cause cervical cancer. A study published in the April issue of the medical journal *Lancet Oncology* reported astounding results: Merck's experimental vaccine was 89% effective in preventing HPV infection and 100% effective in preventing cervical cancer and precancerous lesions. GlaxoSmithKline's trials for Cervarix have had similar findings. Merck's vaccine will stand before the FDA for approval late this year, and the company would like the vaccine to become mandatory for preteen girls.

The researchers believe that if these vaccines are approved and universally administered, cervical cancer could be eradicated. It is hard to imagine why anyone would object to such an advance, but several conservative Christian groups such as the Family Research Council are doing just that. Since HPV is a sexually transmitted disease, they feel that a vaccine may promote sexual immorality among children. Questions raised by the debate are worth addressing.

*If kids know that they can be protected against HPV, won't they be more likely to have sex?*

A British study conducted in 2003 among 1,032 adult women (75% of whom were in school until at least age 19) found that only 1 in 3 women had ever even heard of HPV. Only 1 in 4 of younger women were aware of it, and even fewer knew that HPV was linked to cervical cancer. It is safe to say that awareness is probably even less prevalent among teens and preteens. If knowledge of HPV is largely absent, it is doubtful that fear of HPV and cervical cancer plays much of a role in their decisions about sex. Therefore it seems unlikely that the availability of a vaccine would encourage previously abstinent teens to engage in sexual activity. However, the vaccine would without doubt increase protection against a deadly disease for those that are sexually active.

*But why should vaccination be mandatory? Shouldn't it be the parents' decision?*

It is widely accepted that certain vaccines, such as MMR (which protects against measles, mumps, and rubella), are so important as to be compulsory for children (although exemption is possible in the case of deeply-held religious objection). The principle behind compulsory vaccination is that almost all members of a population must be vaccinated in order to ensure population immunity and
complete safety from a disease; if significant numbers of people opted out of MMR, for instance, then deadly childhood diseases might make a significant comeback. If public health officials decide that the population as a whole would benefit from HPV immunity, parents can rest assured that they are doing so because they want to protect kids from developing cancer in the future, not because they want to promote sexual activity.

I believe in abstinence-only education -- is this vaccine compatible with my beliefs?

Abstinence is undeniably the best method of preventing the spread of sexually transmitted diseases such as HPV, and if parents wish to counsel their children to abstain from sex, they are still free to do so. However, it is the responsibility of public health officials to make sure that those who do engage in sexual activity are protected, and the HPV vaccine could do a great deal to advance this goal. Parents need not see this vaccine as a threat to their values or their religious beliefs any more than they should see safety belts as a threat to responsible driving.


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