

CORRESPONDENCE



Mandating HPV Vaccination — Private Rights, Public Good

TO THE EDITOR: Those who oppose mandating vaccination against human papillomavirus (HPV) as a condition for school entry generally open the debate with two fundamental questions. First, how can the government interfere in the medical decisions parents make for their children by compelling immunizations for school entry? Second, how can the HPV vaccine be a good candidate for school mandates when HPV infection is transmitted only through intimate contact, not through casual encounters, as with other diseases that are preventable with vaccines? In fact, requiring vaccination against HPV for school entry is firmly rooted in American jurisprudence.

The Supreme Court, when first adjudicating compelled vaccination, recognized that the “po-

lice power” granted to states under the Constitution’s 10th Amendment permits all jurisdictions to legislate to “protect the public health and the public safety.”¹ Thus, the Court said, Massachusetts was acting within its appropriate authority when requiring persons to submit to vaccination against smallpox and when imposing sanctions for noncompliance. Seventeen years later, the Court affirmed a Texas mandate that required documentation of the receipt of certain vaccinations before children could enter school.²

Today, all states and the District of Columbia have instituted immunization requirements for school entry and all jurisdictions provide a procedure for parents to opt out of the requirements. These mandates have proved to be the most effective tool ever devised for increasing access to recommended vaccines for our children. Indeed, the national coverage rate for most childhood vaccines is 95%.³

Another argument against compulsory HPV vaccination contends that because the infection is not casually communicable, the traditional justifications outlined in previous judicial decisions do not apply. However, the mode of transmission is a distinction without meaningful difference, and the result is the same. Twenty million persons are currently infected with HPV; 6 million more become infected each year. The threat to the public’s health, at least with respect to vaccine-related strains, is preventable with the vaccine.

Legal precedent, although established before the introduction of the new vaccine against a virus that is transmitted through intimate contact, will nevertheless serve as the nexus for decisions about the future. If courts are ever called on to review the appropriateness of mandating vaccination against HPV, the traditional underlying

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principles set forth to justify vaccine mandates could easily outweigh concerns about the mode of transmission. Courts must rely on and respect the established precedent on which immunization mandates have been built.

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Dr. Stewart reports working under a contract from Merck (with the Department of Health Policy at George Washington University Medical Center, which has conducted research on access to vaccines among the underserved) to study Medicaid coverage of the HPV vaccine. No other potential conflict of interest relevant to this letter was reported.

1. Jacobson v. Massachusetts, 197 US 11 (1905) at 25.
2. Zucht v. King, 260 US 174 (1922) at 175.
3. Orenstein WA, Hinman AR. The immunization system in the United States — the role of school immunization laws. *Vaccine* 1999;17:Suppl 3:S19-S24.

Treatment of Infertility in the Polycystic Ovary Syndrome

TO THE EDITOR: In their report on the treatment of infertility in women with the polycystic ovary syndrome, Legro et al. (Feb. 8 issue)¹ do not mention lifestyle interventions, although a significant proportion of the women in their study were obese. Many studies have shown that weight reduction normalizes ovulation, improves hyperandrogenism, and ultimately increases rates of conception among women with the polycystic ovary syndrome.² In fact, ovulation rates similar to those achieved in the two recent trials with metformin^{1,3} have been previously reported in association with lifestyle interventions.⁴

In addition to infertility in anovulatory women, the polycystic ovary syndrome is associated with metabolic disorders that are linked to insulin resistance and central obesity.⁵ The administration of clomiphene alone does not target these abnormalities, and in the study by Legro et al. it actually led to increases in weight and insulin resistance. In contrast, weight loss has been associated with a significant reduction of visceral fat, leading to an improved metabolic profile.²

On the basis of this evidence, we believe that lifestyle modifications — increased exercise, a properly supervised diet, and smoking cessation — should be the first and are probably the most important steps in the therapeutic approach to the polycystic ovary syndrome in obese women.

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1. Legro RS, Barnhart HX, Schlaff WD, et al. Clomiphene, metformin, or both for infertility in the polycystic ovary syndrome. *N Engl J Med* 2007;356:551-66.
2. Norman RJ, Davies MJ, Lord J, Moran L. The role of lifestyle

modification in polycystic ovary syndrome. *Trends Endocrinol Metab* 2002;13:251-7.

3. Palomba S, Orio F Jr, Falbo A, et al. Prospective parallel randomized, double-blind, double-dummy controlled clinical trial comparing clomiphene citrate and metformin as the first-line treatment for ovulation induction in nonobese anovulatory women with polycystic ovary syndrome. *J Clin Endocrinol Metab* 2005;90:4068-74.
4. Clark AM, Thornley B, Tomlinson L, Galletley C, Norman RJ. Weight loss in obese infertile women results in improvement in reproductive outcome for all forms of fertility treatment. *Hum Reprod* 1998;13:1502-5.
5. Matalliotakis I, Kourtis A, Koukoura O, Panidis D. Polycystic ovary syndrome: etiology and pathogenesis. *Arch Gynecol Obstet* 2006;274:187-97.

TO THE EDITOR: Legro et al. assert that the inferiority of metformin in achieving live births is inconsistent with the findings of previous studies, which show the benefits of metformin in stimulating ovulation. However, in the previous studies, subjects received metformin in an immediate-release form, whereas the subjects in the study by Legro et al. received metformin in the extended-release form, which may not be as efficacious in lowering insulin, androgen, and sex hormone-binding globulin levels.

Clinical experience with extended-release metformin suggests that it is not as effective as the immediate-release form for glycemic control. The nonsignificant decreases in the levels of glucose, insulin, proinsulin, and insulin resistance as determined by homeostasis model assessment associated with metformin in the study by Legro and colleagues provide support for this impression. In an initial study of immediate-release metformin, reported by Nestler and Jakubowicz,¹ sex hormone-binding globulin levels increased by 187.5% (vs. a 12.0% increase with extended-