

DifferentTakes

“Vaccination” Against Pregnancy: What You Need to Know

By Rajani Bhatia and Jennifer Yanco*

A potential new form of contraception fuels the ongoing controversy surrounding the development of methods of birth control versus methods of population control. Unlike currently available methods that work either mechanically as a barrier (condom, diaphragm), chemically (spermicidal foams and jellies), or hormonally (the pill, Depo-Provera, Norplant), immuno-contraceptives, also called anti-fertility “vaccines,” work via the immune system. These contraceptives are designed to operate like vaccines. They attach a disease component (usually tetanus or diphtheria) to a reproductive component (cells or hormones). This tricks the body into developing antibodies that attack its own cells and hormones along with the disease.ⁱ The effectiveness of immuno-contraception

depends on the rate at which these antibodies are produced, and this varies considerably from person to person.

Like the Norplant implant and Depo-Provera injectable, immuno-contraceptives are long-acting and permit little user control. In the ten years since the introduction of Norplant and Depo-Provera in the United States, both have been associated with physical and societal risks. Immuno-contraceptives promise to share many of these dangers.

Both Norplant and Depo-Provera work systemically by altering blood chemistry, changing levels of hormones related to menstruation and reproduction. They both have serious side effects.ⁱⁱ Norplant and Depo-Provera minimize or eliminate user control and involvement; there is evidence that women in Indonesia, the U.S., Bangladesh, Thailand, Egypt, and the Dominican Republic have not been able to obtain removal upon demand. They have also been promoted widely in low-income areas and are associated with decreased condom use, which raises a woman’s susceptibility to sexually transmitted diseases (STDs) and HIV infection. Some studies indicate that Depo-Provera may even be an independent risk factor in contracting HIV and other STDs.ⁱⁱⁱ This reality is hardly inconsequential, given that there are thirty-six million people infected with HIV worldwide and fifteen thousand newly infected each day;^{iv} AIDS is now the leading cause of death among African Americans aged twenty-five to forty-four,^v and the rate of HIV infection through heterosexual intercourse is rising disproportionately among low-income African American women in the rural south.^{vi}

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“Vaccines” for Both Women and Men

After three decades of study, most research on immuno-contraception remains in the lab phase. At present, only two versions of an anti-hCG (human chorionic gonadotrophin) “vaccine” designed for women have advanced to a phase II human clinical trial. The

National Institute of Immunology (NII) in India and the World Health Organization's Human Reproduction Programme (WHO-HRP) each developed these "vaccines." hCG is a hormone that facilitates the implantation of a fertilized egg cell into the wall of the uterus; anti-hCG antibodies neutralize the hormone, forcing a fertilized egg cell to be shed along with the uterine lining during the next period, just as an unfertilized egg would be.^{vii}

Results of the NII trial revealed that immune responses and duration of contraceptive effect of the "vaccines" varied considerably from person to person. Some people did not develop antibodies at all; for twenty-six women, the method failed and they became pregnant. In those that did develop antibodies, duration of protection against pregnancy ranged from a few weeks to eight months.^{viii}

The WHO-HRP also developed an anti-hCG "vaccine" which proceeded to a phase II clinical trial in Sweden in 1993. However, this trial was suspended after the first seven women (two hundred and fifty were expected to enroll) suffered adverse reactions, particularly at the injection site.^{ix} Since then, WHO-HRP has been unable to improve their "vaccine" formulation in a way that would allow them to proceed to clinical trials, and it is questionable whether they will succeed at all.

The U.S.-based Population Council developed and tested a similar "vaccine" for men using the Gonadotropin Releasing Hormone (GnRH). The anti-GnRH "vaccine" interferes with testosterone and sperm production. Side effects include impotence, and a decrease in libido and male characteristics; an implant (called MENT) releasing synthetic testosterone is therefore required in tandem with the "vaccine."^x In the Council's recent phase I anti-GnRH trial on twenty fertile men in Chile, immune responses were found to vary considerably. Scientists therefore feel that the results are not promising enough to pursue.^{xi}

Research Abuses

Supported by funding from the Indian government and the International Development Research Centre in Canada, the NII enrolled one hundred and sixty-two women in a phase II trial on an anti-hCG "vaccine" in the early 1990s.^{xii} In *Antibodies Against Pregnancy: the Dream of the Perfect Birth Control from the Laboratory*, filmmakers revealed that the women were told that the contraceptive vaccine was 100 percent effective for one year and that it had no side effects, neither of which had been proven. The women were not told that they were being enrolled as subjects in an experimental trial and the consent form they were asked to sign was written in English rather than in their own language.

Immuno-contraceptives are expected to be less effective among users with conditions that compromise the immune system (e.g., malnutrition, stress, malaria, tuberculosis, hepatitis, or HIV).^{xiii} These conditions are prevalent among the poor, yet poor women have been disproportionately enrolled in trials and targeted for long-term or permanent methods of birth control in population control programs.

Unreliable, Impractical, and Not Reversible on Demand

Once a body is exposed to an immuno-contraceptive, it takes from five to six weeks to several months for the immune system to develop the level of antibodies necessary to be effective. During this period, the woman or man is still fertile. In theory, once the antibody level is high enough, the contraceptive effect sets in and a person will be infertile for a period of time. Then, at some point the production of antibodies wanes, rendering the user fertile again.^{xiv}

Since immune responses vary considerably from person to person, some may never develop sufficient antibodies to produce the contraceptive effect. Others risk permanent sterility because their immune systems develop a memory of the target and continue to produce a contraceptive effect, even in the absence of booster injections.^{xv}

The only way users can know if they are protected is by undergoing frequent blood tests to determine if antibody levels are high enough to have a contraceptive effect. Furthermore, like Depo-Provera, once an immuno-contraceptive is injected into the body, there is no way to stop its "vaccine" action, even if the user suffers adverse effects.^{xvi}

Implications for AIDS and Other Conditions Affecting the Immune System

Immuno-contraceptives provide no protection against HIV or other STDs, and may indirectly increase the spread of the virus if they are associated with decreased condom use, and if they are delivered and maintained with unsterile needles.^{xvii} The possibility that immuno-contraceptives could speed the process by which HIV infection develops into AIDS has not been ruled out; the interaction between immuno-contraceptives and existing diseases, including AIDS, has not been studied. Because they trick the body into attacking its own healthy cells, there

is a potential for immuno-contraceptives to provoke autoimmune diseases, which occur in the same way. Allergies (i.e., abnormal immune responses) may also be induced or worsened,^{xviii} and users may become allergic to or react heavily against one of the chemical substances added to the “vaccine” to reinforce its effect. This is, in fact, precisely what happened in the WHO-HRP Swedish trial.^{xix}

Immuno-contraceptives as Part of an Alarming Research Trend

Harnessing immune systems to control fertility is a gamble, especially at a time when infectious diseases are on the rise and a leading cause of death worldwide. That these lines of research are not themselves without risk is demonstrated by a 1998-1999 study conducted in Australia. Scientists designed a mousepox virus intended to make their experimental mice infertile, but instead the virus killed all the mice, even those vaccinated against mousepox. Fearing that the technique they stumbled upon could lead to the production of lethal viruses for humans, the scientists issued a worldwide warning.^{xx} It is clear that interfering with the immune system could have severe, unintended consequences.

Feminist Critique

According to Dorothy Roberts, author of *Killing the Black Body: Race, Reproduction and the Meaning of Liberty*, “Norplant’s brief history on the American market demonstrates that long-acting contraceptives that are not user-controlled and not adequately tested pose grave dangers to women’s health and liberty... The developers of the contraceptive vaccine [are] not justified [in] creating a birth control method likely to increase abuse that we know already exists.”^{xxi} Roberts refers to the abuse that has long been a reality for poor women—particularly poor women of color—and women with disabilities in the U.S. This has included forced government sterilization programs, unethical testing of contraceptives, forced use among inmates and welfare recipients, coercive public and

private incentive and disincentive schemes, and the criminalization of low-income pregnant women who test positive for drugs.

Since the late 1980s, women’s health activists around the world have raised concerns about the safety and potential for abuse of immuno-contraceptives. They have prevented trials in Brazil, produced evidence of breaches in informed consent procedure at trials in India, and confronted scientists and research funding institutions based in Switzerland, India, the U.S., and Canada. In 1993, they formed the International Campaign to Stop Research on Anti-fertility “Vaccines.”^{xxii} The Campaign demanded a reorientation of contraceptive research towards safe, reversible methods that “enhance women’s control over their own reproduction; provide protection from sexually transmitted diseases; do not reinforce existing power imbalances between men and women, between providers and users; and provide opportunities for men to fulfil their unmet responsibility for contraception.”^{xxiii} Immuno-contraceptives are unlikely to meet any of these demands.

In Whose Control is Birth Control? The Role of Research

The original idea of immuno-contraceptives arose out of “population control” concerns, but these have ostensibly been rejected in favor of “reproductive health.” Yet researchers have focused on developing long-acting methods of birth control that minimize user involvement and thus, what they term “user mistakes.” Far beyond allowing for “user mistakes,” these modes of contraceptive administration take away a woman’s control over her own body. Feminist health activists have learned through experience that the ethics and motivations of the control in birth control have as much to do with the research process as they do with fertility. There is a need for renewed and continued vigilance to ensure that research on new contraceptives is made transparent and fully accountable to the public. We must work together to ensure democratic control in setting the priorities for health research and the development of new technologies.

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Background and Campaign Material:

- Open Letter: *Call for a Stop of Research on Anti-Fertility "Vaccines"* to the main research institutes and funders involved in the research on immuno-contraceptives. Available in Dutch, English, French, German, Japanese, Portuguese and Spanish from the Women's Global Network for Reproductive Rights (WGNRR), Amsterdam: office@wgnrr.nl.
- Book: Richter Judith *Vaccination Against Pregnancy: Miracle or Menace?* London: Zed Books; 1996.
- Video: *Antibodies Against Pregnancy* by Ulrike Schaz in collaboration with Ingrid Schneider about the development of the "vaccines" and about the trials in India (1991). 45 minutes. Available in English and German from the filmmaker: u.schaz@t-online.de.
- Report: *Resistance on the Rise: International Action Meeting on Anti-Fertility "Vaccines"* in Ottawa, Canada, June 1-5, 1995. Available in English and Spanish from WGNRR: office@wgnrr.nl.
- Report: *Target Practice: Anti-Fertility Vaccine Research and Women's Health*, A Saheli Report. New Delhi: Saheli Women's Resource Centre; October 1998.

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* With research and conceptual contributions from Annette Will and April Taylor. This paper has benefited from the skilled editing of Jackie Knight.

ⁱ Richter J., *Vaccination Against Pregnancy: Miracle or Menace?* London: Zed Books; 1996, pp. 14-17.

Target Practice, A Saheli Report. New Delhi: Saheli Women's Resource Centre; October 1998, pp. 3-5.

ⁱⁱ Side effects for Norplant include prolonged or irregular menstrual bleeding, severe headaches, depression, weight change, ovarian cysts, nausea, difficulties with insertion and removal (including infection), and even nerve damage. Side effects of Depo-Provera include hair loss, delayed return to fertility, nausea, depression, and increased risk for osteoporosis and for breast and cervical cancers.

ⁱⁱⁱ Mostad SB., "Prevalence and correlates of HIV type 1 shedding in the female genital tract." *AIDS Res Hum Retroviruses*. 1998; 14:S11-S15

Smith SM, Baskin GB, Marx PA., "Estrogen protects against vaginal transmission of simian immunodeficiency virus." *Journal of Infectious Disease* 2000; 182(3): 708-715

^{iv} Grady, D., "Scientists shifting strategies in quest for an AIDS vaccine." *The New York Times*, June 5, 2001, p.D1

^v Stolberg SG., In AIDS War, New Weapons and New Victims. *The New York Times*, June 3, 2001.

^{vi} Sack K., Epidemic Takes Toll on Black Women. *The New York Times*, July 3, 2001.

^{vii} Op cit, *Target Practice*, p.6

^{viii} Ibid, p.8.

^{ix} Op cit, Richter, p.36.

^x www.popcouncil.org/faqs/contra97.html#Immunocontraceptive (Accessed on October 10, 2001)

Op cit, *Target Practice*, pp.11-12.

^{xi} Personal communication with Gary Hunnicutt, Staff Scientist at the Population Council.

^{xii} Op cit, *Target Practice*, p.8.

^{xiii} Ibid, p.48.

^{xiv} Op cit, Richter, p. 43-51.

^{xv} Ibid.

^{xvi} Ibid.

^{xvii} Op cit, Richter, p.58.

^{xviii} Op cit, Richter, pp.52-53.

^{xix} Op cit, Richter, pp.33-36.

^{xx} Ibid.

^{xxi} Roberts D. *Killing the Black Body: Race Reproduction and the Meaning of Liberty*. New York: Vintage Books, 1997, p. 148.

^{xxii} Op cit, Richter, pp. 144-148.

^{xxiii} *Resistance on the Rise: International Action Meeting on Anti-Fertility "Vaccines"*, International Campaign against Population Control and Abusive, Hazardous Contraceptives. Amsterdam: July, 1996, p.31.