

Flagging an Invisible Difference in a Cost-Benefit Analysis of Depo-Provera

By Aline Gubrium and Amy Ferrer

In 1995 medical ethicist Mary P. Battin suggested a “thought-experiment” for young women, that from menarche through the age of 17, young women be inoculated with a long-term contraceptive as a way to prevent pregnancy.¹ Like tetanus, diphtheria, and polio, Battin positioned teen pregnancy as a health risk that might be prevented. If *all* girls received a vaccine against pregnancy, they would be safe from the harm incurred from having a child.

Battin’s proposal caused discomfort for at least one reader. Jose Barzelatto, then director of the Ford Foundation’s Reproductive Health and Population Program, fervently disagreed with the idea that all young women be contraceptively vaccinated: “This disregard for the importance of education and access to information, combined with the coercive nature of a policy that requires *all* adolescents to be ‘protected’ implies a form of government or social control that is incompatible with ideas of democracy and respect for individuals.”²

As a long-term (three-month) injectable contraceptive, the provision of Depo-Provera to young women is usually justified by its effectiveness in preventing teenage pregnancy. According to data collected in 2002, 13.9 percent of women ages 15 to 19 currently using a method of contraception were using Depo-Provera, the highest usage rates of any age group.³ Prior cost-benefit analyses of Depo-Provera tend to place the social benefits of the contraceptive above all else, with individual benefits and costs obfuscated by a public health imperative positioning teenage pregnancy as detrimental to the nation’s health.

This article critically questions the scientific literature used in constructing a cost-benefit analysis of Depo-Provera (Depo). The costs and benefits associated with Depo-Provera depend on the group being analyzed—the contraceptive’s benefits for young women of color are constructed more positively and the costs more negatively for other groups of young women. A critical analysis helps to unveil the ways that race, class, and gender are mutually implicated in the construction of a scientific cost-benefit analysis of Depo-Provera.

Individual Benefits and Costs

The individual benefits of Depo-Provera are spelled out in the ways that the contraceptive will benefit the lives of young women. In this context, young women are universally positioned as individuals who each face the mental challenge associated with remembering to take their birth control, the physiological challenge of a monthly period, and the developmental challenge of sexual responsibility.

Depo-Provera is typically said to be convenient or efficient because it does not require much thought to maintain and it allows women to avoid the annoyance of a monthly period. In 1999, Depo-Provera was the first form of prescription birth control to be advertised on television⁴ and was marketed in magazines for young women as a “convenient replacement for the pill.”⁵ The U.S. Department of Health and Human Services notes the effectiveness of the Depo injection—a woman doesn’t have to be daily responsible for remembering to take her contraception and she is afforded a two-week grace period in which to get an injection at the end of three months.⁶ Compared to the one-day grace period for the pill, the Depo shot affords young women, who tend to be perceived as being especially irresponsible with contraception, a larger margin for error.

Thomas Vecchio, M.D. (and former Manager of Medical Development and Chief of Clinical Research for the Upjohn Company) elaborates upon the benefits of Depo-Provera over other forms of contraception.⁷ Vecchio links its efficacy to the needs of certain kinds of women: “The pill is highly effective for those women who are able to remember to take their pill each day with only occasional lapses... However, there are a few who have difficulty with this routine and would prefer the security of being protected without the worry of missing the daily pill.”⁸ Who are those “few” women who might have difficulty sticking to a birth control routine? Vecchio refers to the sexually active adolescent who is “still not responsible enough to be relied upon to use oral contraceptives or barrier methods consistently...” as number one on his list of best candidates for Depo-Provera.⁹

In addition to the convenience of not having to remember to take a pill every day, Depo-Provera is described as being easy to use because it is injected by a healthcare provider, thus relieving a woman of the responsibility associated with self-managed forms of birth control. Convenience is representative of both the future, in which a young woman will not have to be inconvenienced by a child, and the present, where she is not burdened with having to remember to administer her birth control.

Depo-Provera is also described as convenient for women who do not want to have to deal with a monthly period. As one researcher states, “Menstruation can be costly to both women and society. It is often accompanied by physical pain and mood swings that can be disruptive or debilitating, to say nothing of the inconvenience and cost of managing the monthly bleed with sanitary supplies.”¹⁰ Amenorrhea as a common side effect experienced by Depo-Provera users is seen as a boon to both their physical and financial health.

Another individual benefit noted in a standard cost-benefit analysis is the discretion Depo-Provera provides to women. Along with its noted convenience, Depo-Provera is described as a “private” method of birth control, in which women may receive an injection without the knowledge of others outside the clinical setting.¹¹ A metaphor of safety infuses discussions of discretion, with safety linked to the inherent possibility of violence that a woman may face as a result of being found out for using contraception. The discretion afforded by using Depo-Provera is often described within the context of patriarchy, oppression, and women’s empowerment. Here, Depo is constructed as a panacea for those women who previously did not feel comfortable using birth control because they may have been “found out” by family members. This stated benefit, however, does not take into account the breakthrough bleeding that some women may experience with Depo-Provera, which may indicate to their partners or other family members that they indeed are on contraception. Regardless of this possibility, Depo-Provera is seen as bestowing upon some women the “freedom of choice” to use a form of birth control that may be more congruent with their personal or cultural values.¹² These views reflect the mainstream feminist logic that

women are empowered through their ability to access and use birth control.

However, despite this foregrounding of positive outcomes, a number of negative physiological side effects have been linked to the use of Depo-Provera. Bone loss associated with Depo-Provera has been empirically established through scientific research. The FDA has released a black box warning alerting users to this side effect.¹³ Depo-Provera has also been linked with weight gain and an increase in rates of diabetes.^{14, 15} In her meta-analysis of research conducted on Depo-Provera, Sathyamala reports that women gain an average of 8 to 20 pounds during the first 24 months of taking Depo-Provera.¹⁶ Depo-Provera users may discontinue its use because of depressive symptoms.^{17, 18}

Depo-Provera is also known to cause a delay in fertility for at least three months after last use. Moreover, the drug may remain in a women’s body for 12-18 months after the last dose.¹⁹ A joint study sponsored by the National Institute of Child Health and Human Development (NICHD) and the U.S. Agency for International Development (USAID) found a strong correlation between Depo-Provera use and a woman’s chances of contracting Chlamydia and gonorrhea.²⁰ Women using highly effective birth control methods often reduce their use of barrier methods, such as condoms, therefore increasing their risk of contracting sexually transmitted infections.²¹ In addition, recent studies testing the effects of Depo-Provera on rhesus macaques indicate that Depo-Provera may increase HIV transmission by causing a thinning of the vaginal walls.^{22, 23}

Social Benefit

The social benefit of long-term forms of contraception, such as Depo-Provera, is constituted through a differential valuation of reproduction for different groups of women. In comparison with other forms of birth control, Depo-Provera is described as having an extremely high effectiveness rate for preventing pregnancy. Depo-Provera typically results in an annual failure rate of 0.3 percent. It is shown to be more effective in preventing pregnancy than even surgical sterilization (with a 0.5 percent annual failure rate), and much more effective than the birth control pill (with an annual failure rate as high as 8 percent).²⁴

Depo-Provera’s efficacy is firmly rooted in the social benefit it ostensibly provides to the nation by lowering teen birth rates. Editorials advocating for Depo-Provera in newsmagazines and newspapers have linked recent declines in U.S. teen pregnancy rates with an increase in Depo-Provera use among young women. Between 1990 (two years before Depo-Provera was approved as a contraceptive in the U.S.) and 2000, pregnancies among all women ages 15 to 19 dropped from 116.3 per 1,000 women to 84.5 per 1,000. The drop was particularly precipitous



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among African American teens. The teen pregnancy rate for non-Hispanic Black women in the same age group went from 221.3 per thousand in 1990 to 151.0 in 2000.²⁵

In a recent article examining how ethnicity and social class influence women's perceptions of their reproductive health care, low-income women of color report that healthcare providers attempt to limit their childbearing more often than the childbearing of middle-class white women.²⁶ Ethnicity and social class are shown to be significant predictors of whether healthcare providers will discuss long-term birth control options, such as sterilization or provider controlled contraceptives, with a patient. Restricting the reproduction of particular groups of women, such young women of color, is connected to a negative eugenics agenda that views their reproduction as harmful to the health of the nation.

In the U.S., teen motherhood is seen as a burden to the political economy, and thus as unhealthy for a nation perceived to be riddled with the welfare dependency of a certain sector of society.^{27, 28} Along with women who receive welfare benefits and mothers who are addicted to drugs, teen mothers are represented as low-income women of color who perpetuate a bio-underclass of "ruined" children.^{29, 30} Positioned as eventual welfare mothers, teen mothers are fated to become "addicted to the system" and unfit to properly care for their children.^{31, 32} Teen motherhood in this context means fulfilling negative outcomes constructed by the dominant society.

Depo-Provera as a tool for social engineering plays out in data released by the Centers for Disease Control. Of all women currently using a contraceptive in 2002, the rates of Depo-Provera use were significantly higher for Latina women (7.3 percent) and more than twice as high for African American women (9.4 percent) as for white women (4.2 percent).³³ Among women whose income was below the poverty line, 7.1 percent used Depo-Provera, as opposed to only 2.8 percent of those with incomes at or above 300 percent of the federal poverty level.³⁴ More than 7 percent of women without a high school diploma or GED reported using Depo-Provera, whereas only 4.9 percent of women with high school degrees and 1.9 percent of women with bachelor's degrees used Depo-Provera. Furthermore, 9.3 percent of women currently living with a partner and 9.6 percent of never-married women use Depo-Provera, as compared to approximately 3 percent of ever-married women.³⁵ These statistics show that the populations most likely to use Depo-Provera are women of color, low-income women, women with lower levels of education, and unmarried women—women who, in dominant perspectives on motherhood, are often judged to be less fit and less worthy as mothers.³⁶

As a long-acting method, Depo-Provera is discursively positioned in *Time Magazine* as a superhero, rescuing the nation's future:

[Most] public-health agencies [are] positively aglow—and with good reason: the [rate of teen pregnancy] is the lowest it's been in more than 20 years. Among African Americans the news [is] even better. You'd have to go back 40 years to find a time when there were fewer pregnant teens... Depo-Provera works, and for many communities plagued by teen pregnancies, that's what counts.³⁷

Depo-Provera is described as a way to protect the nation from the untoward effects of teenage pregnancy, while also serving as a tool for "at-risk" young women to avoid a most certain disastrous future. The logic is related to a common perception that teenage mothers wreak havoc upon themselves through their own individual choices and that circumstances of poverty and oppression do not precede these choices.^{38, 39} For the benefit of society, these young women are urged to take Depo-Provera.

The Differential Application of Cost-Benefit Analyses

In cost-benefit analyses of Depo-Provera, the units of analysis are given different weights according to the social group analyzed. For young, middle-class, educated white women the individual costs of receiving Depo-Provera, namely adverse physiological side effects, may be seen as outweighing the social benefits of the contraceptive. Until recently (with the release of the film *Juno* and the media hyping of Hollywood teeny bopper Jamie Lynn Spears' pregnancy) young middle and upper class white women were not typically portrayed as being at high risk for teen pregnancy. We propose that this results in fewer women from this social group receiving Depo-Provera. On the other hand, for young, low-income women of color—the prime target group for teenage pregnancy prevention efforts—a different equation comes into play. The scale in this case tips in favor of social benefits over individual costs. Healthcare providers may apply these relative scales in a cost-benefit analysis to target particular groups of women for Depo-Provera distribution.

Whose health and safety are served by the widespread use of Depo-Provera by low-income women of color? Failing to conduct a rigorous cost-benefit analysis that looks at the physiological risks of the drug for *all* women, one arrives at an unbalanced portrait of Depo-Provera as preventive. Invariably, Depo-Provera is represented as a prophylactic mechanism against the further encroachment of social problems, such as teenage pregnancy and welfare dependency, into our society. The fear invoked by these social ills helps create a message that Depo-Provera is ultimately needed for the public health of the nation.

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References

1. Battin M. A better way of approaching adolescent pregnancy. *Social Science and Medicine* 1995;41(9):1203-1205.
2. Barzelatto J. Letter to the Editor. *Social Science and Medicine* 1996;42(5):785.
3. Chandra A, Martinez G, Mosher W, Abma J, Jones J. *Fertility, family planning and reproductive health of U.S. women: Data from the 2002 National Survey of Family Growth*. Washington, D.C.: USDHHS, CDC, NCHS; 2005. Report No.: Series 23, Number 25.
4. West D. Contraceptive ads jump regional hoops, but dream nationally. *Pharmaceutical Executive* 1999;19(4):S9.
5. Hampton MR, McWatters B, Jeffrey B. Method-related experiences of Canadian women using Depo-Provera for contraception. *The Canadian Journal of Human Sexuality* 2000;9(4):247-257.
6. U.S. Department of Health and Human Services. *Norplant, Depo-Provera and Progestin-Only Pills (Minipills)*: USDHHS, Centers for Disease Control and Prevention; 2000.
7. Vecchio TJ. *Birth Control by Injection: The Story of Depo-Provera*. New York: Vantage Press; 1993.
8. *Ibid.*, p. 135.
9. *Ibid.*, p.145
10. Blanchard K. To menstruate or not? *Gynecology Forum* 2003;8(2):13-15.
11. Family Health International. *Progestin-only injectables (POIs) FAQ*: Family Health International; 2006.
12. Macklin R. Cultural difference and long-acting contraception. In: Moskowitz EH, Jennings B, editors. *Coerced contraception? Moral and policy challenges of long-acting birth control*. Washington, D.C.: Georgetown University Press; 1996. p. 173-191.
13. FDA Consumer. "Black Box" Warning Added to Contraceptive Injection. *FDA Consumer* 2005;39(2):3.
14. Espey E, Steinhart J, Ogburn T, Qualls C. Depo-Provera associated with weight gain in Navajo women. *Contraception* 2000;62:55-58.
15. Paul C, Skegg DCG, Spears GFS. Depot Medroxyprogesterone (Depo-Provera) and risk of breast cancer. *British Medical Journal* 1989;229:759-762.
16. Sathyamala C. *An epidemiological review of the injectable contraceptive, Depo-Provera*. New Delhi: Medico Friend Circle; n.d.
17. Civic D, Scholes D, Ichikawa L, LaCroix AZ, Yoshida CK, Ott SM, et al. Depressive symptoms in users and non-users of Depot Medroxyprogesterone Acetate. *Contraception* 2000;61:385-390.
18. Harel Z, Biro F, Kollar L. Depo-Provera in adolescents: effects of early second injection or prior oral contraception. *Journal of Adolescent Health* 1995;16(5):379-384.
19. Clark LR, Barnes-Harper KT, Ginsburg KR, Holmes WC, Schwartz DF. Menstrual irregularity from hormonal contraception: a cause of reproductive health concerns in minority adolescent young women. *Contraception* 2006;74:214-219.
20. Morrison C, Best K. *Hormonal contraception and HIV: An update*: Family Health International; 2004.
21. Anderson JE, Santelli J, Gilbert BC. Adolescent dual use of condoms and hormonal contraception: Trends and correlates 1991-2001. *Sexually Transmitted Diseases* 2003;30(9):719-722.
22. Abel K, Rourke T, Lu D, Bost K, McChesney MB, Miller CJ. Abrogation of attenuated lentivirus-induced protection in rhesus macaques by administration of depo-provera before intravaginal challenge with simian immunodeficiency virus. *Journal of Infectious Diseases* 2004;190(9):1697-1705.
23. Trunova N, Tsai L, Tung S, Schneider E, Harouse J, Gettie A, et al. Progestin-based contraceptive suppresses cellular immune responses in SHIV-infected rhesus macaques. *Virology* 2006;352:169-177.
24. Jain J, Jakimiuk AJ, Bode FR, Ross D, Kaunitz AM. Contraceptive efficacy and safety of DMPA-SC. *Contraception* 2004;70:269-275.
25. Abma J, Martinez G, Mosher W, Dawson B. *Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2002*: National Center for Health Statistics; 2004. Report No.: 23(24).
26. Downing RA, LaVeist TA, Bullock HE. Intersections of ethnicity and social class in provider advice regarding reproductive health. *American Journal of Public Health* 2007;97(10):1803-1807.
27. Merrick E. *Reconceiving Black adolescent childbearing*. Boulder, CO: Westview Press; 2001.
28. Polakow V. Young mothers' stories: Being teenage, Black, and single. In: Polakow V, editor. *Lives on the edge: Single mothers and their children in other America*. Chicago: University of Chicago Press; 1992. p. 63-80.
29. Litt J, McNeil M. 'Crack babies' and the politics of reproduction and nurturance. In: Best J, editor. *Troubling children: Studies of children and social problems*. New York: Aldine de Gruyter; 1994. p. 93-113.
30. Roberts D. *Killing the Black Body: Race, reproduction, and the meaning of liberty*. New York: Vintage Books; 1997.
31. Lubiano W. Black ladies, welfare queens, and state minstrels: Ideological war by narrative means. In: Morrison T, editor. *Race-ing justice, en-gendering power: Essays on Anita Hill, Clarence Thomas, and the construction of social reality*. New York: Pantheon Books; 1992. p. 323-363.
32. Seccombe K, James D, Walters KB. 'They think you ain't much of nothing': The social construction of the welfare mother. *Journal of Marriage and the Family* 1998;60(4):849-865.
33. Chandra A, Martinez G, Mosher W, Abma J, Jones J. *Fertility, family planning and reproductive health of U.S. women: Data from the 2002 National Survey of Family Growth*. Washington, D.C.: USDHHS, CDC, NCHS; 2005. Report No.: Series 23, Number 25.
34. *Ibid.*
35. *Ibid*
36. Collins PH. Will the "real" mother please stand up? The logic of eugenics and American national family planning. In: Clark AE, Olesen VL, editors. *Revisioning women, health, and healing*. New York: Routledge/Taylor & Francis Books, Inc.; 1999. p. 266-282.
37. Kluger J, Park A. The hot shot. *Time* 1998 October 26, 1998:69.
38. Geronimus AT. Damned if you do: Culture, identity, privilege, and teenage childbearing in the United States. *Social Science and Medicine* 2003;57:881-893.
39. Luker K. *Dubious conceptions: The politics of teenage pregnancy*. Cambridge, MA: Harvard University Press; 1996.