

Executive Summary of Meeting

**“Hormonal Contraception and HIV Transmission: Links? Mechanisms? Implications?”
Gynuity Health Projects, New York, NY, May 4 and 5, 2005**

1. In animal and human studies, researchers have established at least seven plausible mechanisms through which hormonal contraceptive use might affect incidence, infectivity, and disease progression of HIV in women. These mechanisms appear most likely to operate with progestin-only contraceptives such as Depo-provera, but may also be associated with the use of other hormonal methods, including combined oral contraceptive pills.
2. Population-based studies on this topic conducted to date have not always shown a clear, statistically significant association between hormonal contraceptive use and any of the above-named aspects of HIV infection. However, several of the better-designed studies have suggested such an association.
3. Dealing with the potential for confounding in these studies is difficult. Measuring confounders accurately and addressing their impact is a challenge in any study; the fact that so many of the possible confounders here – such as sexual behavior and sexual practices – are sensitive matters that are difficult to measure and that participants may not always accurately report makes the problem that much more difficult.
4. The history of medical research makes it clear that unmeasured or improperly measured confounders can have a profound effect on the outcomes of a study. Small mistakes can sometimes significantly distort results and conclusions, as well as actions taken in consequence.
5. It is therefore advisable to approach the findings to date on a possible hormonal contraceptive/HIV association with caution. As of now, the link appears biologically plausible but cannot be considered either to have been proved or to have been demonstrated to be causal.
6. In any case, hormonal contraceptive use does not “cause” HIV infection. Even if it turns out to be one factor contributing to a woman’s risk of contracting and transmitting the virus and/or developing HIV disease, numerous other contributing factors exist, as well. Many of these may have a stronger impact on HIV infection than hormonal contraceptive use is likely to under even a worst-case scenario. It is useful to remember that a woman using hormonal contraception who is at risk of contracting HIV will still be at risk of contracting the virus if she stops using hormonal contraception but changes nothing else about her behavior or situation. The entire context of risk must be taken into consideration, not merely any one individual factor.
7. Hormonal contraception, as a woman-controlled, dependable, effective means of family planning, brings great benefits to women. It allows them to take control of their reproductive lives and protect their health from the risks attendant on pregnancy, and may also provide ancillary health benefits such as protection from ovarian and endometrial cancer. These benefits are especially important in low-resource settings where the risk of death or disability from pregnancy- and abortion-related causes is high.
8. Even if hormonal contraceptive use is determined at some point to be causally linked to increased risk of HIV infection, transmission, and/or disease progression, the implications of this finding will differ greatly among different groups of women. Uninfected women in stable relationships with HIV-negative partners and/or in low-incidence populations would have little reason to change their contraceptive choices. Women less certain of their partners’ infection status or sexual contacts, or with many partners of their own, or who live in higher-incidence settings, might have more reason to consider contraceptive type when assessing their risk. Women in high-risk groups, occupations, or communities might decide

that hormonal contraceptives were best avoided. And the calculus might change for women in areas where the risks of morbidity and mortality from an unwanted pregnancy are high. In other words, even if an association between hormonal contraceptive use and HIV were proved, there would be no “one-size-fits-all” solution. Many factors must be considered simultaneously when thinking about this issue.

9. Future research is important to solidify our understanding of a possible hormonal contraceptive/HIV interaction. Although conducting randomized controlled trials on this question may prove impractical, unethical, or even undesirable, creative approaches to minimizing and/or more precisely measuring confounding factors should be explored. In addition, given the expense and difficulty of mounting large population-based studies, opportunities to collect data on this topic in the context of other large ongoing research projects should be investigated.

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