

Contraceptive failure rates: new estimates from the 1995 National Survey of Family Growth. *Fam Plann Perspect.* 1999 Mar-Apr;31(2):56-63. Fu H, Darroch JE, Haas T, Ranjit N. Alan Guttmacher Institute (AGI), New York, USA.

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CONTEXT: Unintended pregnancy remains a major public health concern in the United States. Information on pregnancy rates among contraceptive users is needed to guide medical professionals' recommendations and individuals' choices of contraceptive methods. **METHODS:** Data were taken from the 1995 National Survey of Family Growth (NSFG) and the 1994-1995 Abortion Patient Survey (APS). Hazards models were used to estimate method-specific contraceptive failure rates during the first six months and during the first year of contraceptive use for all U.S. women. In addition, rates were corrected to take into account the underreporting of induced abortion in the NSFG. Corrected 12-month failure rates were also estimated for subgroups of women by age, union status, poverty level, race or ethnicity, and religion. **RESULTS:** When contraceptive methods are ranked by effectiveness over the first 12 months of use (corrected for abortion underreporting), the implant and injectables have the lowest failure rates (2-3%), followed by the pill (8%), the diaphragm and the cervical cap (12%), the male condom (14%), periodic abstinence (21%), withdrawal (24%) and spermicides (26%). In general, failure rates are highest among cohabiting and other unmarried women, among those with an annual family income below 200% of the federal poverty level, among black and Hispanic women, among adolescents and among women in their 20s. For example, adolescent women who are not married but are cohabiting experience a failure rate of about 31% in the first year of contraceptive use, while the 12-month failure rate among married women aged 30 and older is only 7%. Black women have a contraceptive failure rate of about 19%, and this rate does not vary by family income; in contrast, overall 12-month rates are lower among Hispanic women (15%) and white women (10%), but vary by income, with poorer women having substantially greater failure rates than more affluent women. **CONCLUSIONS:** Levels of contraceptive failure vary widely by method, as well as by personal and background characteristics. Income's strong influence on contraceptive failure suggests that access barriers and the general disadvantage associated with poverty seriously impede effective contraceptive practice in the United States.

PIP: This study estimated method-specific contraceptive failure rates in the US. Estimates were adjusted for underreporting of induced abortion in the main survey. The correction made a sizeable impact, as 25% of the 2,157,473 conceptions due to contraceptive failure were aborted. Data were obtained from the 1995 National Survey of Family Growth and the 1994-95 Abortion Patient Survey. Analysis was based on hazard models for failure in the first 6 and 12 months. Data include 7276 contraceptive use segments. The mean duration was 9.6 months. The pill and condom had the largest shares of use segments. The lowest failure rates were for implants and injectables (2-3%). Failure rates were as follows: oral pills (8%), diaphragm and cervical cap (12%), male condom (14%), periodic abstinence (21%), withdrawal (24%), and spermicides (26%). Failure rates were

highest among cohabiting and other unmarried women; women with an annual family income below 200% of the federal poverty level; among Black and Hispanic women; and among adolescents and women in their 20s. The failure rate among low income women declined during 1988-95. Women above the 200% of poverty level had stable rates. Poverty continued to have a negative impact on effective contraceptive use. Four models were used to examine the effects of socioeconomic factors on contraceptive failure.

Contraceptive failure, method-related discontinuation and resumption of use: results from the 1995 National Survey of Family Growth. *Fam Plann Perspect.* 1999 Mar-Apr;31(2):64-72, 93. Trussell J, Vaughan B.

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CONTEXT: Half of all pregnancies in the United States are unintended. Of these, half occur to women who were practicing contraception in the month they conceived, and others occur when couples stop use because they find their method difficult or inconvenient to use. **METHODS:** Data from the 1995 National Survey of Family Growth were used to compute life-table probabilities of contraceptive failure for reversible methods of contraception, discontinuation of use for a method-related reason and resumption of contraceptive use. **RESULTS:** Within one year of starting to use a reversible method of contraception, 9% of women experience a contraceptive failure--7% of those using the pill, 9% of those relying on the male condom and 19% of those practicing withdrawal. During a lifetime of use of reversible methods, the typical woman will experience 1.8 contraceptive failures. Overall, 31% of women discontinue use of a reversible contraceptive for a method-related reason within six months of starting use, and 44% do so within 12 months; however, 68% resume use of a method within one month and 76% do so within three months. Multivariate analyses show that the risk of contraceptive failure is elevated among low-income women and Hispanic women. Low-income women are also less likely than other women to resume contraceptive use after discontinuation. **CONCLUSIONS:** The risks of pregnancy during typical use of reversible methods of contraception are considerably higher than risks of failure during clinical trials, reflecting imperfect use of these methods rather than lack of inherent efficacy. High rates of method-related discontinuation probably reflect dissatisfaction with available methods.

PIP: This study computed life table probabilities of contraceptive failure, discontinuation of use, and return to contraceptive use in the US. Data were obtained from the 1995 National Survey of Family Growth (NSFG) among a nationally representative sample of 6867 contraceptive use intervals contributed by women 15-45 years old who began use or resumed use after discontinuation during 1991-95. Analysis was based on Kaplan-Meier product-limit single decrement life table probability methods. Findings indicate that the risk of failure during typical use of reversible methods was 9% within 1 year of starting. Women with continuous lifetime use will experience 1.8 contraceptive failures. Failure rates were 7% for the pill, 9% for the male condom, 8% for the diaphragm, 20% for periodic abstinence, and 15% for spermicides. Failure rates reflect imperfect use. 31% of women discontinued use within 6 months of starting use. 44% discontinued within 12

months. Women using reversible methods continuously will discontinue use nearly 10 times during the reproductive period. Most women resumed use shortly after discontinuation. Low income women had higher risk of unintended pregnancy for all methods and the pill and lower risk of resumption after discontinuation. Hispanics had a higher risk of contraceptive failure for all methods and the condom. Black women had a higher risk of discontinuation of oral pills and condoms.