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In Brief

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Improving Contraceptive Use In the United States

The average American woman—who wants two children—spends about three decades trying to avoid pregnancy and only a few years trying to become or being pregnant. Sexually active women who are not seeking pregnancy may nonetheless practice contraception poorly or may not use a method at all. A wide range of reasons explain this seeming contradiction, including personal feelings and beliefs; experiences with methods; fears about side effects; partner influences; cultural values and norms; and problems in the contraceptive care system. Helping women prevent unintended pregnancy requires a broad-based approach that addresses many of these issues.

To identify possible strategies for improving contraceptive use in the United States, two nationally representative surveys investigated women's contraceptive experiences and clinicians' delivery of relevant care. (See box, page 2, for details.) One survey asked sexually active women aged 18–44 who were not seeking pregnancy about their contraceptive use patterns over a one-year period. We focused on adults because many studies have examined adolescents' behavior, and relatively little is known about the contraceptive difficulties experienced by adult women—who account for more than 90% of unintended pregnancies.[1] The second survey asked public and private contraceptive service providers to describe their service delivery protocols and their perceptions of clients' difficulties with method use.

Results of these surveys reveal a complex picture of women's motivation and of client-provider interactions that sometimes hinder effective contraceptive use. They also suggest a number of measures that providers can take to help clients improve their contraceptive practice—many of which would require only simple changes in counseling practices and clinical protocols—and that policymakers, researchers and advocates can take to help in this effort.

BACKGROUND

Unintended pregnancy remains a major problem.

Nearly half of pregnancies in the United States are unintended[2]—they occur earlier than desired (29%) or after women have reached their desired family size (20%).[1] In 2001, such pregnancies resulted in 1.4 million unplanned births and 1.3 million induced abortions (plus an estimated 400,000 miscarriages).[2] In fact, by age 45, more than half of U.S. women have had one or more unintended pregnancies.[3] Unintended pregnancy can force women and their families to confront difficult abortion decisions or the potentially negative consequences associated with unplanned childbearing—including child health and development issues, relationship instability, and compromises in education and employment that may exacerbate ongoing poverty.[4]

Slightly more than half of unintended pregnancies occur among women who were not using any method of contraception in the month they conceived, and more than four in 10 occur among women who used their method inconsistently or incorrectly. Only one in 20 are attributable to method failure (Figure 1, page 2).*[2,5,6]

Method use is difficult.

The pill is the most commonly used contraceptive in the United States, followed by female sterilization, the male condom and vasectomy.[7] For the two-thirds of users who rely on reversible

*The proportion attributable to method failure was estimated as follows: The proportion of pregnancies among contraceptive users that resulted from failure was calculated by dividing the weighted average of perfect-use failure rates for all reversible method users (1.4%)[6] by the weighted typical-use failure rate for all reversible method users (12.4%).[5] The result (11.3%) was multiplied by the proportion of pregnancies that occurred among women who were using a method (48.5%).[2]

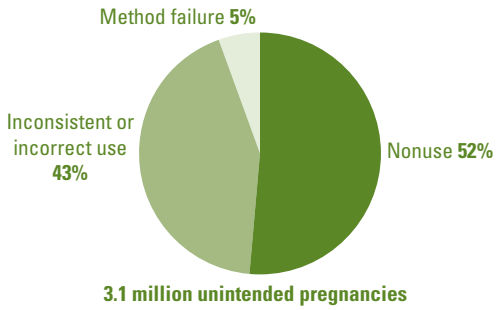
methods—especially methods that are used at the time of intercourse (e.g., the condom) or that must be taken daily (i.e., the pill)—consistent and correct use can be difficult even over short periods of time.

The likelihood of an unintended pregnancy is lowest (1% or less during the first year of use) among women protected by sterilization or an IUD. If used perfectly, hormonal methods, such as the pill or injectable, would also produce low probabilities of pregnancy; however, because of the realities of use, some 7–9% of pill and injectable users become pregnant during the first year of typical use. Inconsistent or incorrect use of male condoms or withdrawal can have an even higher likelihood of leading to pregnancy: Some 17–18% of users of these methods become pregnant during the first year of use, even though perfect use would result in pregnancy rates of just 2–4%.[5,6]

Figure 1

Unintended Pregnancy

Most unintended pregnancies are attributable to nonuse, inconsistent use or incorrect use of contraceptives.



Sources: References 2, 5 and 6.

Study Description

This *In Brief* is based on the Guttmacher Institute's Improving Contraceptive Use project, which collected detailed information on contraceptive use and provision through two nationally representative surveys, one conducted among women and another among service providers. Complete details regarding survey methodology and findings can be found elsewhere.[1–4]

Women's Survey

Data on contraceptive use patterns in the prior year were collected by telephone in 2004 from a random sample of 1,978 women aged 18–44 who were at risk for unintended pregnancy. Women were considered at risk if they were not currently pregnant or seeking pregnancy, had had heterosexual intercourse in the past year and were able to become pregnant (i.e., neither they nor their partner was sterile, and they had not given birth within the past two months). Data were weighted by age, marital status, race and ethnicity to be representative of all nonsterilized U.S. women at risk for unintended pregnancy.

Provider Survey

Four-page questionnaires with items assessing services offered and providers' attitudes were mailed to nationally representative random samples of private physicians and public clinics in 2005. The final private physician samples consisted of 187 family physicians and 194 obstetrician-gynecologists. The final clinic sample consisted of 273 health department facilities, 265 Planned Parenthood sites and 267 community or migrant health centers, hospitals or other clinics.

Analyses and Findings

Bivariate and multivariate analyses were conducted with data from both surveys. All comparisons noted in this report are statistically significant at $p<.05$, in either or both types of analyses. Unless specified otherwise, all data presented here come from published reports of the surveys.[1–4]

1. Frost JJ, Singh S and Finer LB, U.S. women's one-year contraceptive use patterns, 2004, *Perspectives on Sexual and Reproductive Health,* 2007, 39(1):48–55.
2. Frost JJ, Singh S and Finer LB, Factors associated with contraceptive use and nonuse, United States, 2004, *Perspectives on Sexual and Reproductive Health,* 2007, 39(2):90–99.
3. Frost JJ and Darroch JE, Factors associated with contraceptive choice and inconsistent method use, United States, 2004, *Perspectives on Sexual and Reproductive Health,* 2008 (forthcoming).
4. Landry DJ, Wei J and Frost JJ, Public and private providers' involvement in improving their patients' contraceptive use, *Contraception,* 2008 (forthcoming).

Many factors contribute to unintended pregnancy. Women's ability to avoid unintended pregnancy is related to their level of risk for pregnancy, their choice of methods, the strength of their motivation to avoid pregnancy and their pattern of contraceptive use. These factors, in turn, are often associated with women's demographic and socioeconomic background, characteristics of their sexual partnerships, their STD concerns and risks, and their experiences with and attitudes toward pregnancy and contraception. Although unintended pregnancy occurs among women of all backgrounds, levels are highest among women who are low-income, have not completed high school, are members of racial or ethnic minority groups, are aged 18–24 or are unmarried (particularly those who are cohabiting).[2]

The providers whom women rely on for their contraceptive method can also affect women's ability to prevent unintended pregnancy. Half of U.S. women seeking contraceptive care are served by private obstetrician-gynecologists; one in four go to publicly funded family planning clinics; and the rest see family physicians, internists and other private providers.*[8,9] Typically, women who rely on public clinics are more disadvantaged, younger and more likely to be from a minority racial or ethnic group than those seeking care from private providers. These differences may affect the types of services offered and providers' perceptions of their patients' difficulties using contraceptives.

KEY FINDINGS

Gaps in use heighten many women's risk. Of the nearly 50 million sexually active 18–44-year-old women in the United States today, 28 million are at risk for unintended pregnancy.† However, neither contraceptive use nor level of risk for unintended pregnancy is static;

*These proportions exclude women who did not receive clinical contraceptive services in the past year, but who may be using nonprescription methods.

†See box (left) for a full definition of being "at risk" for unintended pregnancy.

over the course of a year, some women have periods when they stop method use, and some have periods when they are not at risk because of pregnancy or sexual inactivity.

Over a one-year period, half of women at risk are adequately protected from unintended pregnancy through consistent and correct contraceptive use (Figure 2). However, nearly one in four (more than six million women) are at high risk for becoming unintentionally pregnant because they experience a gap in contraceptive use: Eight percent use no contraceptive all year, and 15% have a gap in use of one month or longer. An additional 27% are at elevated risk for unintended pregnancy because they use their contraceptive method inconsistently or incorrectly.

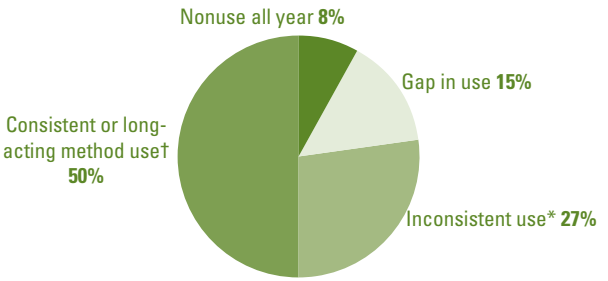
Nearly two-fifths of women who rely on the pill use their method inconsistently (i.e., they missed at least one pill during the past three months), as do three-fifths of women who rely on the condom (i.e., on at least one occasion in the past three months, their partner did not use a condom or put the condom on late—after intercourse began). In addition, condom use is more likely to be inconsistent when women rely on condoms and a less effective method during a single month than when they rely on the condom alone. This finding is likely related to whether women rely on condoms for pregnancy prevention, STD prevention or both.

Some women have more difficulty than others with continuous method use. Disadvantaged women are one example, perhaps in part because they have difficulties in accessing needed contraceptive services or information. Personal, relationship and cultural issues likely also play a role. Women who have little education, who belong to minority groups or who are poor have a relatively high likelihood of having a gap in use of at least one month (Figure 3), as do those who are covered by Medicaid. Disadvantaged women also are less likely than others to be using effective methods, such as the pill, and they are more likely than others to be using the condom. However, some of the association between disadvantage and risky use is due to disadvantaged women's being more likely than others to experience frequent life changes, be dissatisfied with methods and providers, and feel ambivalence toward pregnancy.

Figure 2

Contraceptive Use

Each year, half of women at risk are not fully protected from unintended pregnancy.



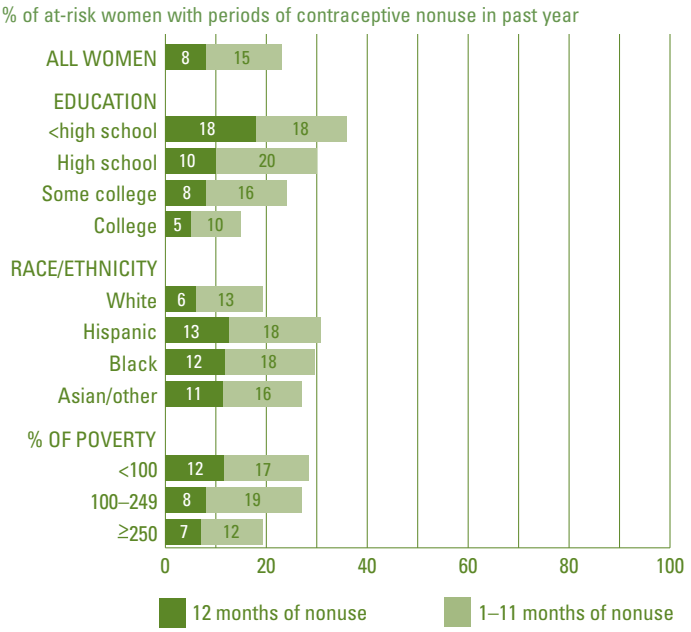
28 million women at risk for unintended pregnancy

*For pills, denotes one or more missed pills in past three months; for barrier methods or withdrawal, denotes nonuse at one or more acts of intercourse in past three months. †IUD, implant, injectable and patch; category also includes 5% of respondents with no data on consistency of use. *Sources:* Frost JJ, Singh S and Finer LB, U.S. women's one-year contraceptive use patterns, 2004, *Perspectives on Sexual and Reproductive Health,* 2007, 39(1):48–55; and special tabulations of data from Guttmacher Institute 2004 survey of women at risk.

Figure 3

Gaps in Use

Disadvantaged and minority women are more likely than others to have periods of nonuse.



Source: Frost JJ, Singh S and Finer LB, Factors associated with contraceptive use and nonuse, United States, 2004, *Perspectives on Sexual and Reproductive Health,* 2007, 39(2):90–99, Table 1.

Potential reasons for gaps in use are many.

Many women with periods of nonuse report difficulties using or accessing methods; others cite infrequent sexual activity, ambivalence about becoming pregnant and misperceptions about pregnancy risk. In addition, for more than half of women who have a gap of at least one month, the period of nonuse coincides with an important life event, such as the beginning or ending of a relationship, a move to a new home, a job change or a personal crisis.

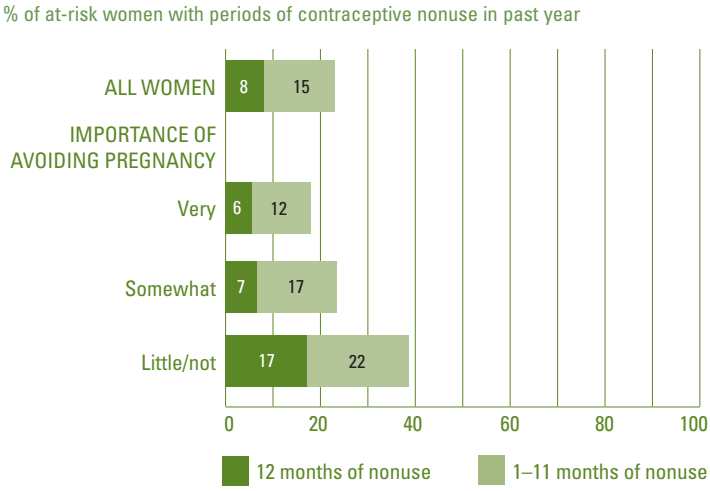
Most providers obtain information on their clients' sexual history, as well as about recent life changes or difficulties, at initial family planning visits. At subsequent contraceptive visits, however, providers far less commonly ask about changes in their clients' lives, such as whether they have moved or changed jobs, and instead only update women's sexual history.

Women's perception of their risk for unintended pregnancy also

Figure 4

Ambivalence About Pregnancy

Pregnancy ambivalence is linked to contraceptive nonuse.



Source: Frost JJ, Singh S and Finer LB, Factors associated with contraceptive use and nonuse, United States, 2004, *Perspectives on Sexual and Reproductive Health,* 2007, 39(2):90–99, Table 2.

may be important. Those who use no method all year typically view their risk as relatively low; this perception likely explains why older women, those who are not in a relationship and those who have sex infrequently are more likely than others to use no contraceptive for an entire year. Whereas these women might be correct that their risk is somewhat diminished, they still are at risk during each act of unprotected intercourse. In addition, among women reporting the lowest frequency of sexual activity—once a month or less—30% have gaps in use of at least one month. Further, the least frequently sexually active women who practice contraception are especially likely to choose the least effective methods, such as periodic abstinence or withdrawal.

*In the provider survey, questions about the proportions of clients who experience specific problems used the following response categories: no/few clients (fewer than 10%), some clients (10–49%) and many clients (50% or more).

Providers confirm that women often underestimate their pregnancy risk. Both public and private providers rank this as the second most prevalent problem among contraceptive clients. (They say that the most common problem is that women skip use of a barrier method because it is unavailable or women find it too inconvenient.) Providers are also generally aware of how hard it is for some women, especially those who think they are at low risk, to comply with the rigors of continuous use: Most providers think that a sizable proportion (10–49%)* of their clients stop method use for at least a month, even when they are at risk. A majority of providers also believe that similar proportions of their clients have each of the following difficulties: confusion about correct use, skipping two or more pills in a cycle and problems negotiating use with partners.

Ambivalence about pregnancy may be a problem. Some women who do not want to become pregnant are ambivalent: More than one in five say they would be very pleased if they found out they were pregnant. Among this group, 21% have had a gap in use while they were at risk, and 16% have not used a method for an entire year.

Although 62% of women consider it very important to avoid pregnancy, 20% consider it only somewhat important and 18% say it is of little or no importance. Almost four in 10 women for whom avoiding pregnancy is of little or no importance have had at least one monthlong gap in use while they were at risk or failed to use any method for a year, compared with fewer than two in 10 of those who deem it very important (Figure 4). The least motivated women are also less likely than others to be using the pill, and more likely to be using less effective methods. Further, when women who care little about avoiding pregnancy use condoms, they are more likely than other women to do so inconsistently.

Both public and private providers appear to recognize that ambivalence about pregnancy is relatively common. More than half think that a sizable minority of their clients are ambivalent about avoiding pregnancy. To address this potential ambivalence, providers nearly always go over clients' pregnancy desires during initial contraceptive visits. During follow-up visits, however, motivation to prevent pregnancy is not always discussed: Sixty-six percent of public family planning clinics and 56% of obstetrician-gynecologists often or always discuss this topic with continuing clients, compared with 32% of family practice physicians.

Method choice and experience are linked to use. Unfortunately, for many women, the choice of a method is not a positive one, but is made out of frustration or dissatisfaction with available options or after a negative experience with a method. Almost two-fifths of women (38%) chose their current method mostly because they did not like any other available option. Current users of the pill and long-acting methods (IUD, implant, injectable and patch) are far less likely than women relying on the condom or a natural family planning method to have actively chosen their method because of dislike of other options (24% vs. 49–58%).

Although a majority of users are completely satisfied with their current method, nearly four in 10 are not. Actual or anticipated side effects, difficulty of use, worry about effectiveness and reduced sexual pleasure are just some of the many reasons women give for being dissatisfied. Users who are not completely satisfied are more likely than satisfied users to put themselves at high risk for unintended pregnancy (e.g., 30% of neutral or dissatisfied users have had a gap in use while they were at risk, compared with 12% of completely satisfied users).

Moreover, being dissatisfied with one's method is associated with incorrect or inconsistent use: Forty-eight percent of dissatisfied pill users have skipped at least one pill in the past three months, compared with 35% of completely satisfied pill users. And 66% of dissatisfied condom users did not use a condom every time they had sex or used it incorrectly, compared with 55% of completely satisfied users. (That a majority of even completely satisfied condom users use their method inconsistently or incorrectly testifies to the inherent difficulty involved with effective use of that method.)

Using barrier contraceptives and other less effective methods is associated with an increased likelihood that women will experience at least a monthlong gap in protection during a year. Women who begin the year using condoms or other less effective methods are much more likely than those who start the year using pills or long-acting methods to have a gap in use while they are at risk (21% vs. 12%). This finding is partly related to differences between less effective methods and more effective methods in the ease of stopping and starting use. However, it probably also reflects that barrier method users are more likely than users of other methods to be dissatisfied with the available options.

Finally, consistent and correct use is related to another aspect of satisfaction: how long women have been using their method. Those who have been using the pill or the condom for fewer than two years are more likely than longer term users to report inconsistent use.

Services, and clients' satisfaction with them, are also important.

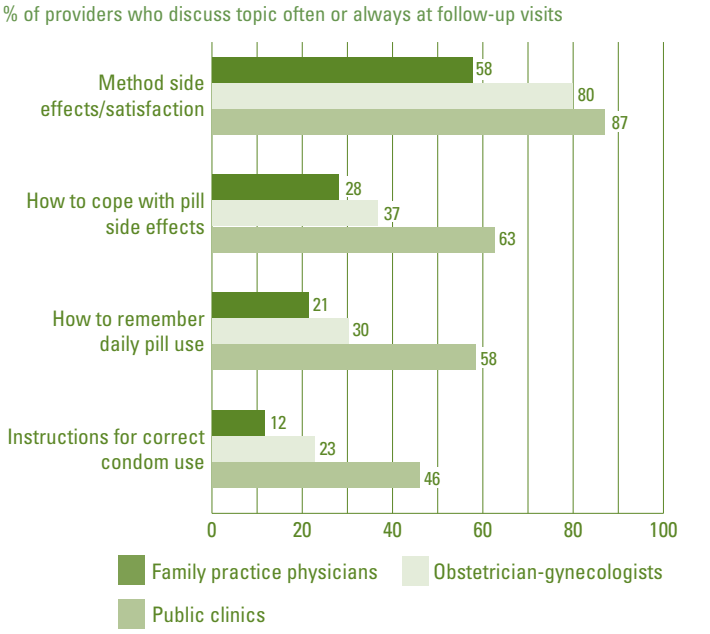
The availability of services and counseling is often related to whether the provider's focus is contraceptive or primary care. Providers are relatively unlikely to offer a wide range of contraceptive services if fewer than one-quarter of their patients see them for contraceptive care. Private family practice doctors, community health centers and hospital clinics are especially likely to have a primary care focus, and they offer a narrower range of contraceptive services than obstetrician-gynecologists, health department clinics and Planned Parenthood clinics, which generally provide contraceptive services to at least one-quarter of their clients.

Nearly two-thirds of women who made a recent contraceptive visit to a medical provider were very satisfied with their experience. And even though provider satisfaction has little association with whether women have gaps in use, it has a strong association with consistency of use, at least among pill users. For example, nearly half of pill users who are somewhat satisfied or dissatisfied with their provider use the pill inconsistently, compared with one-third of those who are very satisfied. In addition, pill users who see different clinicians at each visit are more likely than those who usually see the same clinician to have missed one or more pills in the last three months (51% vs. 36%).

Figure 5

Content of Counseling

Providers vary widely in counseling about consistent and correct contraceptive use.



Source: Landry DJ, Wei J and Frost JJ, Public and private providers' involvement in improving their patients' contraceptive use, *Contraception,* 2008 (forthcoming).

Although providers universally report that they (or their staff) are available to answer contraceptive use questions phoned in by their patients, this is not the perception of all women. Six percent feel that they cannot call their provider with questions, and these women are more likely than those who feel otherwise to have a gap in method use while they are at risk (25% vs. 15%).

Providers overwhelmingly view better and more counseling as one of the most important strategies for improving clients' contraceptive use, even though scientific evidence that effective counseling improves contraceptive use is slim.*[10]

Nonetheless, providers differ widely in their counseling practices for continuing contraceptive clients: Public providers and private obstetrician-gynecologists are more likely than private family practice physicians to often or always discuss method side effects and satisfaction with continuing clients (Figure 5).

Public and private providers differ widely on counseling protocols for continuing pill users. Some 58–64% of public providers often or always discuss four important topics with their pill clients—the availability of different formulations, ways to cope

*In a review of six randomized controlled trials of counseling interventions for hormonal method use, only one was found to be effective. However, the research has suffered from small sample sizes and loss to follow-up, suggesting that although clear evidence is lacking, the effectiveness of counseling has not been disproved.[10]

with side effects, protocols for missed pills and ways to remember to take the pill daily. The proportions are far lower among private providers: Although 55% of obstetrician-gynecologists generally discuss different formulations, just 30–37% cover each of the other topics. Among family practice physicians, the proportions are even lower—37% discuss different pill formulations, and 21–28% discuss each of the other topics. Similar differences are found for counseling about condom instruction.

Access to services remains difficult for many women. Unfortunately, many women have difficulty preventing unintended pregnancy simply because they cannot afford the more effective, prescription methods of contraception. More than one in five public providers report that the majority of their contraceptive clients have difficulty paying for visits, and another third think that such difficulties affect a sizable proportion of clients. Among private providers, more than half believe that a sizable minority of their clients have payment problems. Thus, it is unsurprising that most providers, public and private, think that one of the most important ways to improve contraceptive use is to extend private insurance coverage for the uninsured.

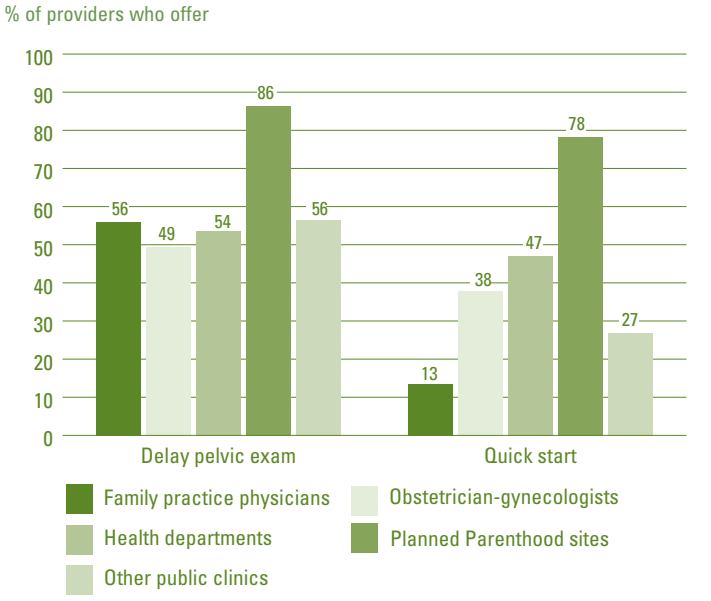
As mentioned earlier, disadvantaged women are especially likely to experience periods of nonuse and not to use more effective methods. Additionally, uninsured women are more likely than privately insured women to use no method all year (13% vs. 7%) and are less likely to be pill users (31% vs. 43%). And although cost and access barriers are not the reasons women most commonly cite for nonuse, one in 10 women who have experienced a gap in use in the past year report that difficulty accessing methods was directly responsible for their nonuse.

To address women's problems getting to the clinic during the workday, a majority of providers (including 90% of Planned Parenthood clinics, 55% of clinics other than public facilities operated by health departments or Planned Parenthood sites, and 64% of private family practice physicians) offer evening or weekend hours. Other strategies that can enhance access include the relatively new "quick start" protocol, under which pill users begin taking the pill the day of their initial visit, regardless of where they are in their menstrual cycle, and a protocol allowing new users of hormonal methods to start their method immediately by delaying a pelvic exam. The extent to which these protocols are offered varies widely by provider type (Figure 6).

Figure 6

New Protocols

The availability of new protocols for hormonal contraceptive users is highest in Planned Parenthood clinics.



Source: Landry DJ, Wei J and Frost JJ, Public and private providers' involvement in improving their patients' contraceptive use, *Contraception,* 2008 (forthcoming).

RECOMMENDATIONS

The findings from both surveys strongly suggest that new strategies are needed to improve women's contraceptive use and, by doing so, to better protect them from unintended pregnancy. The following recommendations target two broadly defined audiences—service providers on the one hand, and policymakers, researchers and advocates on the other. Although numerous providers already offer care that is in line with many of these recommendations, most do not yet follow all of them, and nearly all providers could better serve their clients by improving care in some ways.

For Service Providers

Provide ongoing support for contraceptive use.

- Offer individualized contraceptive counseling about method selection and long-term use that is based on regular assessments of women's sexual activity, relationship characteristics and changes, and other life events, such as difficulties with family, work or school.

- Counsel women about the potential impact of certain life events on consistent contraceptive use, and help them to be prepared when transitions occur by providing backup methods, emergency contraception or both.

Improve women's knowledge of contraceptive risks and benefits.

- Assess women's motivations for selecting specific methods, to ensure that their choice is not based on misperceptions about other methods. Some women may need more information about available methods, including their noncontraceptive benefits.

- Develop patient materials, appropriate to clients' educational level and culture, that inform women about the risks (actual versus perceived), benefits and proper use of methods.

Anticipate and manage side effects.

- Review patients' experiences and satisfaction with their method at each visit, and promptly address problems,

dissatisfaction or concerns about side effects. Alert women that the likelihood of inconsistent use is highest soon after starting a method, and discuss ways to improve success.

• Implement practices that make it easy for clients to switch methods or pill formulations until they find the one best suited to them. Women need additional support and encouragement when switching methods.

• Confirm that all client questions about contraception have been addressed, and give clients a simple and efficient way to contact staff if further questions or concerns arise.

Recognize fluidity in women's reproductive goals.

• Discuss women's current attitudes toward pregnancy—and their level of motivation to avoid it—during all contraceptive visits.

• For women who have low motivation to prevent pregnancy or who express ambivalence, provide targeted counseling that addresses their risk of becoming pregnant, the contraceptive options that lower risk, and the value of being prepared for pregnancy and of planning appropriately to ensure a healthy pregnancy should one occur.

Offer the widest possible range of contraceptive options.

• Maintain up-to-date information about all approved methods. Integrate new contraceptive options as soon as they are approved or provide referrals to assure that clients have access to every available method.

• Support women's use of multiple methods, and discuss strategies to optimize contraceptive effectiveness and STD prevention, including promoting consistent condom use.

• Recognize that women who have infrequent sexual intercourse have specific contraceptive needs, but may not seek contraceptive care. Consider assessing the risk for unintended pregnancy of all female clients of reproductive age and counseling those who have sex infrequently about the probability of pregnancy and the effectiveness of individual methods.

• In anticipation of future needs of women who have sex infrequently, consider providing or prescribing methods, including emergency contraception.

Address logistical and cost barriers.

• Put protocols in place that enhance women's ability to begin using hormonal methods without delay, such as postponing a pelvic exam for new hormonal method users or following the quick start protocol for new pill users.

• Assess whether women have difficulty paying for services or their desired method; if so, make sure they are aware of any free or discounted services and supplies for which they are eligible.

• Ensure that all existing mechanisms for obtaining reimbursement for counseling services are being used.

Enhance professional education and offer mutual support.

• Develop mechanisms for providers to share "best practices" regarding contraceptive care.

• Broaden the contraceptive knowledge base of providers whose focus is primary care, such as family practitioners.

• Offer communication training to improve client-provider interactions and to more effectively motivate clients.

For Policymakers, Researchers and Advocates

• Advocate for increased private insurance coverage of contraceptive services—especially counseling, which is seldom explicitly covered by insurance plans. Support less onerous refill policies to avoid the potential gaps in pill use that sometimes result.

• Advocate for increased public funding to expand access to contraceptive services for women who are unable to pay or have difficulty doing so.

• Conduct more extensive research into poorly understood but important topics, such as how ambivalence toward pregnancy, changes in life circumstances, and fear of and experience with side effects contribute to inconsistent method use. Learn more about how accurately women assess specific methods' health risks, and about how to help women who overestimate those risks.

• Encourage federal agencies and the pharmaceutical industry to invest more in research and development to improve existing methods and create new ones. The real-life difficulties experienced by users of today's methods make this a high priority for action. Making contraception easier and more convenient to use will go a long way toward improving success, given the difficulties that many women have in using some methods.

• Support broad-based media and public education campaigns that provide accurate information about pregnancy risk and that emphasize that scientific evidence supports the safety and effectiveness of contraception.

• Support public education campaigns that emphasize the importance of planning for pregnancy and that provide information on the consequences of unintended pregnancies for women and their families.

Though not a panacea, many of the recommended provider strategies could be implemented with relatively minor changes in clinical protocols, especially the strategies that anticipate or identify method use difficulties (perceived and actual) and that address these problems promptly. Universal access to contraceptive care will likely be achieved only with broad-based changes in health care financing. In the meantime, however, the strategies recommended here can be implemented now and have an immediate, measurable impact on women's lives.

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CREDITS

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