

## REVIEW



# Reproductive Health Disparities: A Focus on Family Planning and Prevention Among Minority Women and Adolescents

生殖健康差异：关注未成年和青春期女性的计划生育和预防

Desigualdades en la salud reproductiva: enfoque sobre la planificación familiar y la prevención entre las mujeres pertenecientes a minorías y las adolescentes

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**ABSTRACT**

Minority women and adolescent females of all races and ethnicities are disproportionately affected by unintended pregnancy in the United States. Adolescents also experience an additional proportion of the burden compared to other age groups, as 82% of pregnancies among women 19 years old and younger are unintended. Moreover, minority and adolescent mothers are at increased risk for having preterm deliveries, low birth weight infants, and other complications. Unintended pregnancy continues to be an important public health problem in the United States, and prevention through family planning is urgently needed. This review presents an overview of the US demographics for unintended pregnancy among both minority and adolescent women and identifies current and past efforts to reduce unintended pregnancy, specifically among minority and adolescent females, through contraception and family-planning programs.

**摘要**

在美国，所有人种和种族的未成年和青春期女性都在不同程度上受到意外怀孕的困扰。相较于其它年龄段群体，承受此种负担的青春期女性的比例更大，因为在意外怀孕的女性中，有 82% 为 19 岁及以下的女性。此外，未成年和青春期妈妈还面临着早产、产下低出生体重儿和罹患其它并发症的高风险。在美国，意外怀孕一直是一个重要的公共卫生问题，通过施行计划生育来加以预防迫在眉睫。本评论对美国未成年和青春期女性意外怀孕的人口统计资料进行了概述，并肯定了当前和过去在通过避孕和计划生育计划减少意外怀孕方面，特别是减少未成年和青春期女性意外怀孕方面，所做出的努力尝试。

**SINOPSIS**

Las mujeres pertenecientes a minorías y las adolescentes de todas las razas y etnias resultan afectadas de manera desproporcionada por los embarazos no deseados en los Estados Unidos. Las adolescentes experimentan también

una proporción adicional de la carga en comparación con otros grupos de edad, ya que el 82 % de los embarazos entre las mujeres de hasta 19 años de edad son no deseados. Además de eso, las madres pertenecientes a minorías y adolescentes están expuestas a un mayor riesgo de partos prematuros, niños de bajo peso al nacer y otras complicaciones. El embarazo no deseado sigue siendo un importante problema de salud pública en los Estados Unidos, donde existe una urgente necesidad de prevención por medio de la planificación familiar. Esta revisión presenta un resumen de los datos demográficos del embarazo no deseado en los EE. UU., tanto entre las mujeres pertenecientes a minorías como entre las adolescentes, y se identifican los intentos y esfuerzos, pasados y actuales, para reducir el embarazo no deseado, especialmente entre las mujeres pertenecientes a minorías y las adolescentes, por medio de programas de control de la natalidad y planificación familiar.

**BACKGROUND****Epidemiology of Unintended Pregnancies, General Population**

Reproductive health continues to be a public health challenge in the United States as the rate of unintended pregnancies remains unacceptably high (52 per 1000 women aged 15-44 y) compared to other developed countries. Rates among minority (African American [91 per 1000 women aged 15-44 y] and Hispanic [82 per 1000 women aged 15-44 y]) women and adolescent females (ages 15-19 y, 60 per 1000) are

highest in the United States.<sup>1</sup> “Unintended” refers to pregnancies that are undesired at the time of conception as well as those that are mistimed. Similar to intended pregnancies, unintended pregnancies can result in an unplanned birth (48%), termination of pregnancy (43%), or in a miscarriage (9%).<sup>2</sup> In 2006, 49% of all pregnancies among women aged 15 to 44 years were unintended, increasing from a rate of 50 to 52 per 1000 women aged 15 to 44 years in 2001.<sup>1,2</sup>

From a public health standpoint, the benefits to maternal and child health from avoiding unintended

pregnancy are well established. Specifically, births resulting from unintended and closely spaced pregnancies can have important maternal and fetal health consequences. These pregnancies are often associated with mothers' delaying presentation for prenatal care as well as higher rates of smoking during pregnancy. Infants born from unintended pregnancies have a higher likelihood of a preterm birth and of being low birth weight infants.<sup>3</sup>

In addition to the health consequences of unintended pregnancy, there are many economic and social costs. According to the Guttmacher Institute, unintended pregnancies and births are associated with dissatisfaction and conflict in relationships and higher rates of depression and anxiety among couples.<sup>4</sup> Unplanned births also have been associated with lower educational attainment and less financial stability for some women by reducing teenaged mothers' earnings by 23% for white adolescents and 13% for black adolescents.<sup>4</sup> By postponing childbirth until her 20s, a woman increases the likelihood of completing high school and acquiring a higher education by 40% to 70%.<sup>4</sup>

Additionally, most individuals and couples want to optimally plan the timing and spacing of their pregnancies based on their personal goals. Women as a group want to avoid unintended pregnancies for a range of social and economic reasons. The Guttmacher Institute surveyed 2000 women presenting for contraceptive services from diverse backgrounds about why they were motivated to use contraception and prevent unintended pregnancy. A majority of women reported that "over the course of their lives, access to contraception had enabled them to take better care of themselves or their families, support themselves financially, complete their education, or get or keep a job."<sup>5</sup>

From an economic standpoint, in 2006, 64% of unintended births in the United States were publicly funded, resulting in \$11.1 billion USD<sup>6</sup> to \$11.3 billion USD<sup>7</sup> in associated governmental costs; however, these were estimates of short-term medical costs only and are likely to be higher when considering nonmedical and long-term costs. Because of the critical need to address this public health problem, the Healthy People 2020 initiative aims specifically to decrease unintended pregnancies by 10% over the next 10 years.<sup>2,8</sup> In order for these goals to be achieved, the significant disparities among women at risk for unintended pregnancy must be taken into consideration.

### Minority and Adolescent Women

Not all women have the same risk of unintended pregnancy, and important racial disparities exist. Minority women experience unintended pregnancies at twice the rate of white women. Among 15 to 44-year-olds, blacks have the highest rates of unintended pregnancy (91 per 1000) followed by Hispanics (82 per 1000) and then whites (36 per 1000).<sup>1</sup> According to 2006 to 2010 National Survey of Family Growth (NSFG) data, 42.9% of Hispanic births and 53.5% of black births were unintended compared to 30.7% of non-

Hispanic white births.<sup>3</sup> Therefore, when interventions are designed to address unintended pregnancy rates, minority women must be a priority.

It is estimated that 82% of all adolescent pregnancies are unplanned, with one-fifth of all annual unintended pregnancies occurring among women aged 15 to 19 years.<sup>9</sup> Minority adolescents, specifically black (117 per 1000) and Hispanic (107 per 1000) adolescents, have rates of unintended pregnancy that are three times higher than adolescent whites (43 per 1000).<sup>9</sup> Furthermore, Hispanic adolescents are more likely to have an unintended birth (70.1 per 1000) compared to black adolescents (59.0 per 1000) and white adolescents (25.6 per 1000).<sup>10</sup>

### EPIDEMIOLOGY OF ABORTION

About half of all unintended pregnancies in the United States end in abortion.<sup>2</sup> In 2008, the majority of women obtaining abortions were in their 20s (58%), unmarried (85%), and had already had at least one child (61%).<sup>11</sup> As with unintended pregnancy, racial disparities also exist in abortion rates mirroring the data presented previously for unintended pregnancy. Specifically, in 2008, black women had the highest rate of abortion (40.2 per 1000 women), and Hispanic women had the second highest rate (28.7 per 1000 women)—both significantly higher than the rates in white women (11.5 per 1000 women).<sup>12</sup> Interestingly, 54% of women were using some form of contraception during the month in which they became pregnant, indicating they were not intending to become pregnant, but instead were incorrectly using or using less effective means of contraception.<sup>13</sup> Fewer than 5% of abortions occur among women with intended pregnancy; therefore, interventions that reduce unintended pregnancy also could reduce the abortion rate.

Of particular interest in the discussion of abortion rates is the rate of repeat abortions: approximately half of all women choosing abortion have previously had one.<sup>13</sup> In general, women who experience unintended pregnancy are similar in age, race, ethnicity, and number of previous births to those who have repeat abortions. Thus, minority and adolescent women also are disproportionately affected by repeat abortion. Efforts to reduce unintended pregnancy and births might also decrease rates of abortion and of repeat abortion among minority women and adolescents.<sup>13-15</sup>

The impact of unintended pregnancy on women, children, and society is significant. The increased rate of unintended pregnancies since 2001 and the disproportionate burden affecting minority women and adolescents call for improved efforts to combat this trend. Increasing the use of the most effective methods of contraception and understanding the factors that can facilitate this are critical for preventing unintended pregnancies. This review describes efforts to reduce unintended pregnancy, specifically among minority women and adolescents, through contraception and family-planning programs.

## CONTRACEPTION AS PREVENTION

Contraception as a means of preventing unintended pregnancies among minority women and adolescents is of critical importance. Access to contraception and pregnancy planning has many benefits for women, their partners, children, and society. Effective contraception enables women to better care for themselves and their families, establish financial stability, attain higher education, and remain employed.<sup>4</sup> However, contraceptive use among reproductive-age women decreased from 64% in 1995 to 62% in 2008.<sup>16</sup> In addition, contraceptive use is uneven across groups of women, as noted by the large discrepancies in unintended pregnancy rates. Among women at risk for unintended pregnancy, blacks are less likely than other races/ethnicities to use contraception (84%) compared to Hispanic and white women (both 91%).<sup>16</sup> Furthermore, 15 to 19-year-old women use contraception 81% of the time and are likely to use less effective methods.<sup>3</sup>

Inconsistent methods, such as the male condom, hormonal oral contraception, vaginal ring, or patch, all require proper and consistent use in order to be effective.<sup>17,18</sup> As a result, these methods have lower efficacy with typical use, which can be as low as 85% for male condoms and 92% for the pill, patch, or ring. Highly effective methods of contraception, such as intrauterine devices (IUDs) and the subdermal implant, often referred to as long-acting reversible contraception (LARC), require minimal care after insertion. Thus, the risk of failure by user error is decreased, and in turn, LARC methods are more than 99% effective at preventing pregnancy.<sup>19</sup>

Use of LARC is encouraged as an optimal choice of contraception by numerous organizations, including the American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Pediatrics (AAP), ACOG recently stated,

*IU[D]s and implants are the best reversible methods for preventing unintended pregnancy, rapid repeat pregnancy, and abortion in young women. Complications of the IU[D] and contraceptive implant are rare and differ little between adolescents and older women. Health care providers should consider LARC methods as first line for adolescents and help make these methods available to them.*<sup>20</sup>

In spite of increased promotion of LARC methods, oral contraception is the predominant contraceptive chosen by women, accounting for about 28% of all contraceptives used, a trend that has been stable since 1995.<sup>16</sup> Rates of IUD use have fluctuated greatly from 7% in 1982 to 1% in 1995 to 2% in 2002, and the most recent data show an increase to 5.5%.<sup>16</sup> IUD use has increased among the better educated and highest-income groups but remains low for minority women and adolescents.<sup>16</sup> Numerous factors may influence this disparity, including barriers to access to reproductive health services, lack of awareness of methods, lack of appropriate counseling, and provision of LARC by their healthcare providers.

## BARRIERS TO CONTRACEPTION

Specific barriers to obtaining a LARC device include lack of insurance coverage for the device and insertion, scheduling and attending appointments, and obtaining referrals.<sup>21</sup> There is also substantial evidence that cost may be a significant barrier in preventing many women from choosing the most effective methods of contraception. A study comparing age (14-17 y old and 18-20 y old) and preference for LARC vs non-LARC contraception found that, when cost is not a factor, both groups prefer LARC.<sup>22</sup> Data from the Contraception CHOICE Project, which included 9256 women, of whom 55.6% were minority women and 21.9% were adolescents, have shown that providing contraception at no cost reduced abortions and repeat abortions to less than half of the national average.<sup>23</sup> Furthermore, after free contraception was provided for 2 to 3 years, the adolescent birth rate in this study was significantly lower than the national rate (6.3 per 1000 vs 34.4 per 1000).<sup>23</sup> Removing access barriers, specifically cost, can lead to higher rates of LARC use; however, additional factors exist that also may limit women's choices.

Other factors that are associated with low utilization of LARC include a lack of provider knowledge about appropriate candidates, skill of device insertion, and biases. In spite of ACOG and AAP recommendations, some providers have misconceptions about the risks associated with LARC methods, especially for adolescents, which limits provision of LARC to otherwise eligible women.<sup>24-28</sup> Furthermore, providers taking care of the reproductive health needs of women may not have the skills to place LARC for their patients, thus doubly limiting a woman's access to a LARC method.<sup>21,29</sup> Biases also exist in relation to providers' prescription of contraception. Specifically, race, ethnicity, and age can influence how providers counsel their patients. Research found that when the clinical context was the same for all women, provider bias existed in contraceptive counseling, with whites of high socioeconomic status and Latinas and blacks of low socioeconomic status being more likely to receive an IUD recommendation than whites of low socioeconomic status.<sup>30</sup> These results indicate that providers' conscious and unconscious beliefs may influence their contraception counseling and affect their prescription of LARC methods.

A woman's contraceptive choices also may be limited due to low awareness of methods, fears of side effects, and distrust of the healthcare system. Previous studies have shown that minority women have lower levels of knowledge and more misconceptions about birth control compared to white women.<sup>31,32</sup> Similarly, adolescents also have limited knowledge about contraception, as evidenced by one study in which only 14.7% of women aged 14 to 24 years reported knowledge of LARC methods.<sup>33</sup> Among Latinas, perceived side effects, including fears about cancer, infertility, and lower sex drive, resulted in women not choosing certain methods of birth control.<sup>31</sup>

Historically, efforts to promote contraception and attempts to limit fertility among minority and poor women have led to an element of distrust of providers that has contributed to disparities in birth control use.<sup>30</sup> These historical events include perfecting gynecological surgical techniques on slaves in the 1800s,<sup>34</sup> government-funded birth control clinics in the 1930s aimed at lowering the birthrate among blacks,<sup>34</sup> government-sponsored family planning programs that coerced sterilization among minority women during the 1960s and 1970s highlighted by the case of *Madrigal v Quiligan*,<sup>35</sup> and policies that specifically promoted Norplant (Wyeth, Philadelphia, PA) among poor and minority women.<sup>36</sup> Specifically, this has led to some black women preferring approaches that do not require contact with providers. In a study of blacks, women surveyed who had higher levels of provider distrust were less likely to use provider-dependent methods, such as a hormonal method or LARC. Instead, these women were more likely to use methods such as condoms and withdrawal, which do not require contact with a healthcare provider but also have lower efficacy.<sup>37</sup>

### FACILITATORS OF CONTRACEPTION

There are three important factors that have been found to facilitate contraception use: recommendation from trusted sources, cultural competence, and a comprehensive programmatic approach.

#### Recommendation From Trusted Sources

The literature shows that a recommendation from a healthcare provider is influential in a woman's decision to use contraception in general and an IUD specifically. A study of women aged 14 to 27 years found that contact with providers, specifically hearing from a provider about IUDs, was a significant predictor of being interested in this method of contraception.<sup>38</sup> In a qualitative study, black women also stated that physician recommendations were the most influential factor in determining whether they chose an IUD as their contraception method.<sup>21</sup> In addition to providers, patients' peers and family members influence contraception use. A qualitative study investigating adolescents' understanding of contraception found that male and female participants most often referenced personal sources of information (friends and family) as influencing their decisions and knowledge.<sup>39</sup> In addition to recommendations from friends and family, having partner support was also found to be a facilitator of IUD uptake among adolescent mothers postpartum.<sup>21</sup> Further research with adolescents found that parental involvement led to more consistent use of dual methods of contraception among adolescents.<sup>40</sup>

#### Cultural Competence

There is limited research on cultural competency within the context of contraception provision. Though important for taking care of women in many racial/ethnic groups, studies that focus on cultural competency

and family planning have addressed primarily Latinas. Providers who work primarily with Latina clients identified the importance of understanding Hispanic culture in contraceptive-counseling programs.<sup>31</sup> The inclusion of male partners and the individual context of their relationships have been found to be important aspects of programs for Latinas.<sup>41</sup> Understanding the significance of family and motherhood within the Hispanic culture was also critical in counseling Latina adolescents.<sup>42</sup> A study of Latina adolescents found that they agreed with the guidelines from the National Council of La Raza (NCLR), a Hispanic advocacy organization, which state that optimal pregnancy-prevention programs for Latino youth should include the following: having a culturally sensitive and nonjudgmental staff, being responsive to Latino subgroup differences, emphasizing education, recognizing cultural values regarding gender roles, involving parents and families of teenagers, conducting active outreach to involve young men (or teen fathers), and including age-appropriate sexuality education.<sup>43</sup> Therefore, increasing available bilingual educational materials, training providers in culturally competent care, building trust between patient and provider, and including male partners are important factors to include in future research and program development.

Evidence identifying culturally specific factors for black women is limited. The few studies that exist have a broader focus on sexual risk-taking behaviors rather than specifically on family planning. These studies highlight the importance of promoting cultural and self-identity among black women. An intervention focusing on parenting education found that black adolescents can learn self-esteem and positive racial identity and body image from their parents and those who do are less likely to engage in sexually risky behaviors.<sup>44</sup> Furthermore, including education on condom skills in the parenting program curricula was effective in reducing unprotected sex.<sup>45</sup> Another strategy that has been found to have positive effects on reducing sexual-risk behaviors among black adolescents is the Adult Identity Mentoring (AIM) program.<sup>46</sup> Finally, a study comparing normal HIV/sexually transmitted diseases (STD) teaching interventions with enhanced intervention including methods to enhance participants' self-worth and self-concept found that black adolescents in the intervention group were more likely to have used condoms at last intercourse (adjusted odds ratio [AOR]=3.9) and more likely to have used condoms consistently within the past 30 days (AOR=7.9) than the control group.<sup>47</sup>

#### Comprehensive Programmatic Approach

Many different types of programs exist, primarily within the school sex-education framework, that are geared towards addressing unintended pregnancy and sexual risk-taking behaviors among adolescents. Although results are mixed, the literature has identified important elements of successful programs. Evidence suggests that comprehensive programs are more effective at reducing unintended pregnancy than abstinence



education or providing information on contraception alone.<sup>48-50</sup> A Cochrane meta-analysis of 41 studies found that information provided solely on contraception did not affect adolescent pregnancy rates. Elements of comprehensive programs associated with effective outcomes included abstinence education, behavioral-skill development, community outreach, contraceptive education and access, life option enhancement, self-efficacy and self-esteem education, and sexuality/STD/HIV/AIDS education.<sup>50,51</sup> Furthermore, in a Kaiser Family Foundation study, students and their parents wanted more information to be covered in public school sex-education programs. More than 90% of parents and 50% of students would like more information included on safer sex and negotiation skills.<sup>49</sup>

Components found to be effective in pregnancy prevention include teaching abstinence and providing information about contraception and sexually transmitted infections. However, in spite of these findings, the reduction of unintended pregnancies through comprehensive programs is modest, and studies have found that the effects diminish over time.<sup>48,52</sup> Further development and research in optimizing pregnancy-prevention programs are needed.

Efforts to reduce unintended pregnancy among adult populations have focused on policies aimed at overcoming barriers to accessing contraception by women most at risk of unintended pregnancy.<sup>53,54</sup> According to an article by Taylor and James, comprehensive policy and programmatic needs have been identified:

*Reproductive health services, such as maternal child health, family planning, abortion services, pre-conception care, and fertility protection should be delivered as a collection of integrated or coordinated treatment and prevention services that address the full range of sexual and reproductive health needs and acknowledges sociocultural factors, gender roles and the respect and protection of human rights.<sup>55</sup>*

However, there is no comprehensive plan set out as to how to provide these services to women most at risk of unintended pregnancy.<sup>55</sup>

## CONCLUSIONS

Efforts to increase access and effective use of contraception by the most vulnerable populations, minority women and adolescent females, should remain a public health priority. Given the complex nature of contraception decision making, access to care, and provision of contraceptive services, a multifactorial approach to pregnancy prevention with an intimate understanding of issues specific to adolescent and minority women is needed. The data consistently show the vulnerability of minority women and adolescent females to unintended pregnancy. LARC methods of contraception have much potential to allow women greater control over planning when they want to become pregnant. However, the current low uptake of

these methods calls for further research on specific ways to increase their use among minority women and adolescents. Preventive programs should consider including providers, peers, and families in building more effective interventions for expanding contraception access and provision among these women.

In addition, it is clear that cost of contraception remains a barrier to access and use of the most effective methods. Thus, continued efforts to change policy to improve access to contraception are necessary. Based on a cost-benefit analysis from 2004, such policy changes would be cost effective as increased governmental expenditure on family-planning services can decrease the economic burden of unintended pregnancies by \$4 USD for every \$1 USD spent.<sup>56</sup> The future of reproductive health could see improvements with the implementation of the 2010 Affordable Care Act, which should expand insurance coverage and access to contraceptive services for all women. Researchers must be diligent about measuring the impact of the Affordable Care Act on the unintended pregnancy rate, with special attention to minority women and adolescents.

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