Interest in Over-the-Counter Access to a Progestin-Only Pill among Women in the United States

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\textbf{Abstract}

\textbf{Background:} A progestin-only pill may be the first pill formulation to become available over the counter in the United States; however, no research on over-the-counter (OTC) pill interest has focused on progestin-only pills or a representative sample of teens. The objective of this study was to assess U.S. women and teens’ interest in OTC progestin-only pill use.

\textbf{Methods:} In October 2015, we conducted a nationally representative, cross-sectional, online survey with 2,026 sexually active adult women aged 18 to 44 not currently desiring pregnancy, and 513 female teens aged 15 to 17. Logistic regression was used to identify characteristics associated with likely OTC progestin-only pill use. We also assessed reasons for use or nonuse, duration of use, and willingness to pay.

\textbf{Results:} Thirty-nine percent of adults and 29% of teens reported likely use, with a greater likelihood if covered by insurance. Adults were willing to pay $15 per month and teens $10 per month on average. Among adults, women who were never married or living alone (vs. married), uninsured (vs. privately insured), current pill or less effective method users (vs. ring, patch, injectable, or intrauterine device), tried to get a birth control prescription in the past year, or ever used an oral contraceptive pill or progestin-only pill had higher odds of likely use. Among teens, Spanish speakers and those who ever had sex had higher odds of likely use; Black teens (vs. White) had lower odds.

\textbf{Conclusions:} Teens and adults are interested in using an OTC progestin-only pill. These findings indicate a large pool of interested users and the potential for improved contraceptive access by making an OTC progestin-only pill available.

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progestin-only emergency contraception is already approved for OTC use (Grossman, 2015), a progestin-only pill may be the first OCP formulation to be approved for OTC sale in the United States (Grossman, 2015). Both progestin-only pills and combined OCPs are highly effective (91% with typical use; Trussell, 2011). However, only 4% of U.S. pill users use progestin-only pills (Liang, Grossman, & Phillips, 2012).

Several studies have explored women's interest in OTC access to OCPs (Grossman et al., 2010; Grossman et al., 2013; Landau et al., 2006; Murphy, Kirkman, & Hale, 1995). A 2011 nationally representative survey of U.S. adult women at risk of unintended pregnancy found 371% were likely to use an OTC combined oral contraceptive (Grossman et al., 2013). However, no research has focused on U.S. women's perspectives on an OTC progestin-only pill or included a representative sample of teens.

Given that progestin-only pills are likely to be the first OTC OCP yet they are used by a very small minority of women, it is critical to understand the perspectives, and possible misperceptions, among women of all ages related to an OTC progestin-only pill. The objective of this study was to estimate the proportion of sexually active U.S. adult women not currently desiring pregnancy and teens aged 15 to 17 who would be likely to use an OTC progestin-only pill. We also explored reasons for use and nonuse, anticipated duration of use, and willingness to pay for an OTC progestin-only pill, among other topics.

**Materials and Methods**

In October 2015, we conducted a nationally representative cross-sectional survey with 2,026 sexually active adult women aged 18 to 44 not currently desiring pregnancy and 513 female teens aged 15 to 17 to explore their interest in OTC access to a progestin-only pill. We conducted the survey with GfK's KnowledgePanel, a nationally representative, probability-based, nonvolunteer online household panel (Knowledge Networks, 2013). This panel has been shown to give more accurate results than telephone interviewing and Internet data collection from nonprobability samples (Callegaro, Villar, Kroshnick, & Yeager, 2014; Yeager et al., 2011).

KnowledgePanel uses an address-based sample frame for recruitment, involving probability-based sampling of addresses from the U.S. Postal Service's Delivery Sequence File. To include individuals without Internet access, GfK provides a laptop computer and Internet access to panelists who do not already have them. Survey incentives vary by whether a household receives a laptop and Internet access. For those that do, the incentive is the hardware and Internet service that GfK provides for free. For households using their own personal computer and Internet service, GfK enrolls panelists into a program and credits them with points in proportion to their regular participation in surveys. Adult participants in this survey received their standard incentive of approximately 1,000 points, the cash-equivalent of $1. Teen participants received 5,000 points, the cash-equivalent of $5 (awarded via their parents).

Our sample was drawn from active panel members using a probability-proportional-to-size weighted sampling approach. Panel members who met the primary inclusion criteria (female, aged 15–44, who spoke English or Spanish) were invited by e-mail to participate; teens aged 15 to 17 were first contacted through their parent or guardian. Adult respondents were screened and eligibility was limited to those considered sexually active and not currently desiring pregnancy (had sex with a man in the past 12 months and were not pregnant or trying to become pregnant; Landau et al., 2006); adult women were excluded if they or their partner were sterile. Postpartum women were included as progestin-only pills are appropriate for use in this population (Curtis et al., 2016). Teens were eligible if they were not pregnant or trying to become pregnant; teens were not screened for sexual activity so as to maintain confidentiality with their parent or guardian, and they were not screened for sterility owing to the rarity of sterilization among teens. Teens were drawn from a sample that was as representative as possible of parents of girls 15 to 17 residing in the United States, and then weighted to U.S. benchmarks for 15- to 17-year-olds.

Participants gave written informed consent before completing the survey. For teens, consent was first collected from a parent or guardian and then teen assent was sought. During parental consent, parents were informed that the survey included questions about birth control use, testing like Pap smears, and a new way for women to access the birth control pill. Adult and teen participants were not informed of the survey topic when invited to participate. The study was approved by the Allendale Investigational Review Board.

We aimed for a sample size of 2,000 adult respondents. With a sample of 2,000 at a 95% confidence interval (CI) and a design effect of 1.8, the maximum error attributed to sampling and other random effects was estimated to be ±2.9%. To reach this sample, we estimated 6,838 panel members would need to be contacted, assuming an incidence of 45% of the panel members would satisfy inclusion/exclusion criteria (Landau et al., 2006) and a cooperation rate of 65% (Callegaro & Disogra, 2008). The cooperation rate was lower than this estimate, and a random sample of 7,700 adult panel members was invited to participate in the survey. Additionally, we aimed to include approximately 500 teens aged 15 to 17 years old based on the feasibility of recruiting teens; all 1,883 parents of females aged 15 to 17 in the panel were contacted.

The survey was pretested in September 2015 with 25 participants to ensure comprehension. The final survey was fielded in October 2015 in English and Spanish. GfK provided a data file with weighting variables incorporating design-based weights accounting for panel recruitment and study-specific post-stratification weights benchmarked against the demographic and geographic distributions for noninstitutionalized women aged 15 to 44 from the March 2014 Current Population Survey (Bureau of the Census for the Bureau of Labor Statistics, 2014). The weights were also benchmarked against the Spanish language distributions from the 2013 American Community Survey (United States Census Bureau, 2013).

GfK had already collected demographic data on panel participants, and these questions were not included in the survey. The survey included approximately 30 questions on participants' background, contraceptive use and expenses, likelihood of using an OTC progestin-only pill, and reasons for interest and noninterest. Interested women were asked their anticipated duration of use and highest price they would be willing to pay for each month's supply. Current condom users were asked about their likelihood of dual method use, and participants were asked about preventive screenings.

OTC access was described to participants as follows:

With ‘over-the-counter’ access, birth control pills would be available on a shelf at a drug store or grocery store just like cough medicine or some allergy pills. You would not need a prescription from a doctor or nurse. You would not need to