

# Attitudes Toward Over-the-Counter Access To Oral Contraceptives Among a Sample Of Abortion Clients in the United States

**CONTEXT:** Women having abortions are at high risk for future unintended pregnancy, and removing the prescription requirement for oral contraceptives may increase continuation and adoption of this effective method.

**METHODS:** A survey fielded from May to July 2011 collected information from 651 women aged 15–46 seeking abortion services at six urban clinics from across the United States. Descriptive statistics, chi-square tests and logistic regression analyses were conducted to estimate women's interest in over-the-counter access to oral contraceptives.

**RESULTS:** Eighty-one percent of respondents supported over-the-counter access to oral contraceptives; while 42% of women planned to use the pill after their abortion, 61% said they would likely use this method if it were available over the counter. Thirty-three percent of women who planned to use no contraceptive following their abortion said they would use an over-the-counter pill, as did 38% who planned to use condoms afterward. In multivariable analysis, several subgroups had increased odds of likely over-the-counter use: women who were older than 19 (odds ratios, 1.8 for those aged 20–29 and 1.6 for those aged 30–46), were uninsured (1.5), had ever used the pill (1.4), had had difficulty obtaining a prescription refill for hormonal contraceptives (2.7) or planned to use the pill postabortion (13.0). By contrast, compared with white respondents, women of other races or ethnicities were less likely to say they would use over-the-counter pills (0.4–0.7).

**CONCLUSIONS:** Interest in a hypothetical over-the-counter oral contraceptive was high in this sample, and this delivery model has the potential to reduce unintended pregnancy among abortion patients.

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Unintended pregnancy is a significant public health concern in the United States, accounting for half of all pregnancies each year.<sup>1</sup> Multiple factors contribute to this, including difficulties many women have in accessing contraceptives, which are a common reason for gaps in use and for unprotected intercourse.<sup>2–6</sup> Women having abortions are at high risk for future unintended pregnancy and abortion,<sup>7,8</sup> and are therefore an important population in which to study barriers to and potential facilitators of effective contraceptive use.

Over-the-counter access to oral contraceptives has been proposed as a way to improve the availability of this effective method, and may be particularly attractive to those who have faced barriers to obtaining prescription birth control, including some women seeking abortion. On the basis of evidence documenting the safety and effectiveness of this delivery model,<sup>9–11</sup> in December 2012, the American College of Obstetricians and Gynecologists issued a committee opinion in support of over-the-counter access to oral contraceptives, citing its potential to reduce unintended pregnancy.<sup>12</sup>

A growing body of research indicates that U.S. women are interested in obtaining oral contraceptives over the counter. A 2011 survey found a high level of support for over-the-counter access to oral contraceptives among a nationally representative sample of 2,046 women who

were at risk of unintended pregnancy (i.e., they had had heterosexual intercourse in the past year, were not pregnant or trying to get pregnant, had not delivered a baby in the past two months and were not protected by male or female sterilization): Sixty-two percent favored such access, and 37% said they were likely to use the pill if it were available this way.<sup>13</sup> A 2004 national survey of 811 U.S. women at risk of unintended pregnancy also found high interest in nonprescription access to hormonal methods: Sixty-eight percent said they would use the pill, patch or ring if it were available without prescription.<sup>4</sup> Furthermore, in a 2006 survey among 601 women from a predominantly Latina population living on the U.S.-Mexico border, 60% of respondents who were not sterilized and not using a hormonal contraceptive or the IUD said they would likely use an oral contraceptive if it were available over the counter in the United States.<sup>14</sup> Finally, in in-depth interviews conducted with low-income women in Boston from 2007 to 2009, the majority of participants said they would expect an increase in convenience and access to oral contraceptives if such methods were accessible over the counter.<sup>15</sup>

While these studies demonstrate that women from a variety of backgrounds are interested in obtaining oral contraceptives over the counter, no research has been conducted among women seeking abortion, a population at particularly high risk of unintended pregnancy.<sup>7</sup> The primary aim

of the present study was to assess support for and use of over-the-counter access to oral contraceptives among this population.

## METHODS

### Sample and Data

Between May and July 2011, women who were seeking an abortion or a follow-up appointment after an abortion, and who could read and write in English or Spanish, were recruited in the waiting rooms of six large, urban clinics that provide abortion services at a range of gestational ages in the first and second trimesters. Clinics were located in Georgia, New Jersey, Illinois, Texas, Arkansas and California, and were selected to represent geographic and demographic diversity. Data for this study were collected as part of a larger survey that included questions on women's attitudes toward new contraceptive methods, empowerment and abortion care.<sup>16</sup> Ethical review board approval was obtained to include minors without parental consent, as the research involved sensitive subject matter, including questions about contraceptive knowledge, sexual behavior and pregnancy history. Recruitment occurred for 3–10 consecutive days at each facility, and attempts were made to approach all eligible women.

A research assistant first explained the study and use of an iPad, and participants then gave electronic consent. Using an iPad, participants completed a self-administered questionnaire in English or Spanish; responses were kept confidential. Women received \$20 for completing the survey. The study protocol was approved by the Committee for Human Research at the University of California, San Francisco.

### Measures

Participants were asked about their age, race and ethnicity, education level, marital status and health insurance status. We used the 2011 Department of Health and Human Services poverty guidelines<sup>17</sup> to convert respondents' income level and the number of people in their household into a dichotomous variable indicating poverty status (below 200% of the federal poverty level or 200% or higher). Questions about women's contraceptive practice covered use in the three months prior to their pregnancy and whether they had ever used the pill, tried to obtain a prescription for birth control (i.e., for the pill, patch or ring) and had difficulty obtaining a prescription or getting refills. If they reported any difficulties obtaining or refilling a prescription, they were asked to select the problems they had had from a list of options and write in any reasons not listed. Women were also asked about any contraceptive methods they were planning to use after their abortion.

In addition, respondents were asked about their opinion of oral contraceptives' being available over the counter, even if they were not necessarily interested in using pills obtained this way. Over-the-counter access was described as follows: "Birth control pills would be available on a shelf at a drugstore or grocery store just like cough medicine or

some allergy pills. If you had a question, you could talk to a pharmacist. You would not need a prescription from a doctor or nurse." Women were considered to support over-the-counter access if they reported being "strongly in favor" or "somewhat in favor" (versus "strongly opposed," "somewhat opposed" or "not sure"). They were then asked to select from a list the reasons why they favored or opposed such access to the pill, and to write in other reasons not listed.

Women were also asked about their likelihood of using over-the-counter access or pharmacy access to oral contraceptives if available. Pharmacy access was described as follows: "Birth control pills would be available at the pharmacy, but you would have to answer some health screening questions by the pharmacist and possibly get your blood pressure checked before you could get the pills. You would not need a prescription from a doctor or nurse." Women who planned to use oral contraceptives after their abortion were considered likely to use over-the-counter or pharmacy access if they reported being "very likely" or "somewhat likely" to get their pills in either of these ways (versus "would prefer to get oral contraceptives from doctor or nurse"). Women who were not already planning to use oral contraceptives were considered likely to begin using the pill if they said they were "very likely" or "somewhat likely" to begin the method if available either of these ways (versus "not more likely to start using oral contraceptives" or "not interested in oral contraceptives"). Respondents were then asked to select from a list of reasons why they were or were not interested in over-the-counter and pharmacy access to the pill, and to write in other reasons.

Progestin-only pills would likely be the first type of birth control pill that would be available without a prescription in the United States, because they are similar in formulation to Plan B One-Step emergency contraception, which is already approved for sale without a prescription, and because contraindications to these pills are fewer and rarer than those to combined oral contraceptives.<sup>18</sup> Women were therefore asked about their willingness to use an over-the-counter progestin-only pill. Researchers described these pills as safer than those containing estrogen, and explained that to work, they must be taken at about the same time every day; if they are taken more than three hours late, women must use a backup method of birth control for two days. Participants were also told that when using progestin-only pills, they might experience light bleeding between periods or no periods at all. Women were considered willing to use an over-the-counter progestin-only pill if they answered "definitely yes" or "probably yes" (versus "definitely no," "probably no" or "not sure"). Respondents who said they were not interested in using an over-the-counter progestin-only pill were then asked to select from a list of reasons why they were not interested, and to write in other reasons.

Women were also asked how much they would be willing to pay for a month's supply of pills if the method were available over the counter. They were then asked the

following question: “Would you be willing to pay an additional amount to speak with a pharmacist who would help you decide if the pill is right for you and answer your questions? If so, how much additional money would you be willing to pay each time to speak with a pharmacist?”

### Analysis

All statistical analyses were completed using Stata 12.0, and tests were assigned significance at  $p < .05$ . Our primary outcomes were support for over-the-counter access to oral contraceptives and the likelihood of using an over-the-counter pill. Our secondary outcomes were the likelihood of using pharmacy access to oral contraceptives or over-the-counter access to progestin-only pills, as well as how much women would pay for a monthly pill supply and for pharmacist screening. Pearson chi-square tests were used to calculate univariable differences in the outcomes among subgroups. Multivariable logistic regression models were then run to estimate the odds of supporting over-the-counter access, of using an over-the-counter pill and of using pharmacy access to the pill, by participant characteristics. We used Stata's *vce* (cluster *clustvar*) option for cluster-correlated data in the multivariable models to introduce clinic site as a random effect and to account for the possibility that a patient's perspectives might vary by location.<sup>19</sup> All demographic and reproductive health characteristics we assessed were candidates for inclusion in the multivariable models, except for contraceptive use in the three months prior to pregnancy, because of overlap with ever-use of oral contraceptives. All variables were considered as binary or categorical measures, and one category was selected as the reference group on the basis of large sample size or meaningful comparison. Initially, all independent variables were included in an a priori regression model. Sequentially, extraneous variables with a high  $p$  value ( $p > .20$ ) were removed from the model. If two or more nonsignificant variables remained in the model, collinearity diagnostics were performed using the Belsley-Kuh-Welsch Criteria to eliminate nonsignificant collinear variables and avoid false negatives;<sup>20</sup> no collinear variables were found.

## RESULTS

### Sample Characteristics

A total of 757 women were eligible and were invited to participate in the study, and 651 agreed (Table 1). The majority (58%) were in their 20s, while 18% were 19 or younger, and 24% were 30 or older (range, 15–46). Forty-five percent of participants were black, 24% were white, 17% were Hispanic, 6% were Asian or Pacific Islander, and 8% were of other race or ethnicity (or did not report this information). Most women had completed some postsecondary education (44%) or had a college degree (16%). About three-quarters had never married, and a similar proportion had incomes below 200% of the federal poverty level. Thirty-one percent had private health insurance, 39% had public insurance and 30% were uninsured. Nearly all participants (98%) completed the survey in English (not shown).

**TABLE 1. Percentage distribution of women seeking abortion services at six urban clinics, and percentage who supported and who would be likely to use over-the-counter access to oral contraceptives, by selected characteristics, United States, 2011**

Characteristic	Total (N=651)	Support (N=632)	Likely to use (N=649)
<b>All</b>	<b>100.0</b>	<b>81.3</b>	<b>60.7</b>
<b>Age</b>			
15–17	7.8	68.6*	47.1
18–19	9.8	85.9	61.9
20–24	34.4	79.2	65.0
25–29	24.0	81.2	61.5
30–46	24.0	86.8	57.7
<b>Race/ethnicity</b>			
White	24.0	90.9**	73.1**
Black	44.7	75.6	54.6
Hispanic	16.9	86.3	66.1
Asian/Pacific Islander	6.3	75.6	53.7
Other/missing	8.1	79.3	51.9
<b>Education</b>			
<high school	14.5	69.3**	52.1
High school/GED	25.9	77.4	60.7
Some postsecondary	43.9	86.5	63.3
≥college	15.9	83.7	61.2
<b>Marital status</b>			
Never-married	77.8	80.3	62.1
Married	12.3	81.8	58.2
Separated/divorced/widowed	9.9	88.5	54.7
<b>% of federal poverty level</b>			
<200	77.1	80.0	59.8
≥200	22.9	85.6	65.3
<b>Insurance status</b>			
Private	31.2	86.0*	61.4*
Public	38.6	75.6	54.6
Uninsured	30.2	83.6	67.7
<b>Contraceptive use three months prior to pregnancy</b>			
Pill	15.6	88.7	70.3
IUD/implant	0.9	50.0	50.0
Condom	17.6	80.6	60.5
Other	10.5	83.3	61.8
None	55.5	79.6	58.1
<b>Contraception plans after abortion</b>			
Pill	42.2	89.4***	85.7***
IUD/implant	15.0	80.0	33.0
Condom	5.9	75.0	37.8
Other	28.0	77.0	51.7
None	8.9	62.5	32.8
<b>Ever used pill</b>			
No/don't know	42.0	73.2***	51.9***
Yes	58.0	87.1	67.2
<b>Ever had difficulty obtaining prescription for pill/patch/ring</b>			
No/never tried	93.5	80.8	60.1
Yes	6.5	89.7	69.1
<b>Ever had difficulty obtaining refill for pill/patch/ring</b>			
No/never tried	86.2	80.0*	57.4***
Yes	13.8	89.8	81.1

\*Differences among subgroups are significant at  $p < .05$ . \*\*Differences among subgroups are significant at  $p < .01$ . \*\*\*Differences among subgroups are significant at  $p < .001$ . Notes: Chi-square tests were used to assess differences among subgroups. Percentages may not total 100.0 because of rounding.

In the three months prior to their pregnancy, 16% of respondents had used oral contraceptives, 1% an IUD or implant, 18% condoms only, 11% another method and 56% no method. Forty-two percent of women planned to use the pill following their abortion.

Most women (58%) had used the pill before. Overall, 7% had experienced difficulty obtaining a prescription for birth control; these women made up 11% of the 379 participants who had ever tried to get one (not shown). Fourteen percent of all women, representing 24% of those who had ever tried to get a prescription, had had difficulty obtaining refills. Among the 106 women who said why they had had difficulty getting a prescription, the following reasons were most commonly given: lack of insurance (34%), method cost (26%), difficulty getting an appointment (16%), difficulty paying for an appointment (11%), challenges in taking time off from school or work (9%), not knowing where to get a method (8%), inconvenient clinic hours (8%), provider refusal to give a prescription (7%), transportation difficulty (7%), not wanting a physical exam (4%) and difficulty finding time (1%). Among the 90 respondents who reported why they had had difficulty getting refills, reasons included loss of insurance (29%), method cost (26%), having to visit a provider for the refill (22%), not being able to contact a provider (16%), being told they needed an exam or Pap smear to get a refill (16%), limited pharmacy hours (9%), loss of insurance coverage for the method (9%) and not being able to get to the pharmacy where the prescription was on file (8%).

**Support for Over-the-Counter Access**

Overall, 81% of respondents (95% confidence interval, 78–84%) were in favor of oral contraceptives’ being available over the counter. Support for such access was high across subgroups, particularly among whites (91%) and Hispanics (86%), and among women with higher education levels (84–87%). Women who had ever used oral contraceptives, were planning to use them or had had trouble obtaining a refill were also highly supportive (87–90%). Notably, the level of support did not differ between women who had experienced difficulty getting a prescription and those who had not. In multivariable analysis (Table 2), blacks were less likely than whites to support over-the-counter access (odds ratio, 0.4), and women without a high school degree were less likely to do so than were those with at least a college degree (0.4). Women who planned to use the pill after their abortion were more likely than those who intended to use an IUD or implant to support over-the-counter access (2.2), and respondents who had ever used the pill were more likely than never-users to support such access (1.6).

Among the 514 women who expressed support for over-the-counter access, the most commonly cited reason was convenience (76%). Other top reasons included belief that such access would result in fewer teenage pregnancies (58%) and fewer unintended pregnancies (55%), and would be less expensive (39%), and that it is not necessary to see a

**TABLE 2. Adjusted odds ratios (and 95% confidence intervals) from multivariable logistic regression analyses assessing associations between selected characteristics and women’s support for over-the-counter access to oral contraceptives and their reports that they would be likely to use such access**

Characteristic	Support (N=625)	Likely to use (N=642)
<b>Age</b>		
15–19 (ref)	na	1.00
20–29	na	1.82 (1.28–2.60)*
30–46	na	1.57 (1.01–2.42)*
<b>Race/ethnicity</b>		
White (ref)	1.00	1.00
Black	0.38 (0.17–0.82)*	0.51 (0.28–0.93)*
Hispanic	0.74 (0.25–2.22)	0.67 (0.57–0.78)*
Asian/Pacific Islander	0.40 (0.13–1.16)	0.47 (0.26–0.83)*
Other/missing	0.50 (0.20–1.26)	0.41 (0.19–0.89)*
<b>Education</b>		
<high school	0.43 (0.21–0.87)*	na
High school/GED	0.67 (0.30–1.51)	na
Some postsecondary	1.20 (0.87–1.65)	na
≥college (ref)	1.00	na
<b>Insurance status</b>		
Private (ref)	na	1.00
Public	na	1.06 (0.65–1.71)
Uninsured	na	1.47 (1.04–2.08)*
<b>Contraception plans after abortion</b>		
Pill	2.18 (1.37–3.49)*	12.96 (8.34–20.13)*
IUD/implant (ref)	1.00	1.00
Other	0.90 (0.40–2.03)	2.06 (0.96–4.44)
None	0.56 (0.22–1.39)	1.14 (0.52–2.49)
<b>Ever used pill</b>		
Yes	1.61 (1.05–2.48)*	1.40 (1.14–1.72)*
No (ref)	1.00	1.00
<b>Ever had difficulty obtaining refill for pill/patch/ring</b>		
Yes	1.65 (0.84–3.25)	2.71 (1.74–4.21)*
No (ref)	1.00	1.00

\*p<.05. Notes: Analyses controlled for all variables shown, and clinic site was included as a random effect. ref=reference group. na=not applicable, because characteristic was not included in analysis.

health care provider to obtain birth control (16%). Among the 118 women who opposed over-the-counter access, the following reasons were the most common: Women need to speak with a provider to decide about pill use (44%), teenagers would have sex earlier or more often (27%), women would not use the pill correctly (25%), women would not choose the best pill for themselves (16%), women would forgo Pap smears or health exams (11%), and the cost of birth control pills would increase (9%).

**Likelihood of Use**

Sixty-one percent of respondents (95% confidence interval, 57–64%) said they would likely use over-the-counter access to oral contraceptives if available (Table 1). Although reports among age-groups were not significantly different, 47% of women aged 15–17 said they would use an over-the-counter pill, while 58–65% of those in older cohorts said they would do so. Whites and Hispanics were more likely than women of other races or ethnicities to say they would use over-the-counter access



(73% and 66%, compared with 52–55%), and uninsured respondents were more likely than insured ones to report this (68% vs. 55–61%). Women who planned to use the pill after their abortion were far more likely than those who planned to use no method, an IUD or implant, condoms alone or with a spermicide, or another method to report that they would use over-the-counter pills (86%, compared with 33–52%). In addition, respondents who had ever used the pill were more likely than never-users to say they would use over-the-counter access (67% vs. 52%), and those who had had difficulty getting refills were more likely than other women to endorse such access (81% vs. 57%).

In multivariable analysis (Table 2), women aged 20–29 or 30–46 were more likely than those aged 15–19 to report that they would use an over-the-counter oral contraceptive (odds ratios, 1.6–1.8). Similarly, uninsured women had greater interest in such use than those with private insurance (1.5), and those who had used oral contraceptives in the past or had had difficulty getting a prescription refilled had elevated levels of interest (1.4 and 2.7, respectively). Notably, interest was considerably higher among women who were planning to use the pill following their abortion than among those planning to use an IUD or implant (13.0). Finally, compared with white women, respondents of other races or ethnicities were less likely to say they would use over-the-counter access (0.4–0.7).

The top reasons reported among the 391 women who expressed interest in obtaining oral contraceptives over the counter were time savings (63%), convenience of hours and locations (54%) and financial savings associated with not having to visit a clinic (47%—Table 3). Among the 41 women who expressed a preference for requiring a prescription, the most commonly cited reasons were wanting to speak with a doctor or nurse about the pill (54%), privacy (42%), wanting to ask questions about proper pill use (42%), wanting a physical or pelvic exam (29%), and wanting provider supervision (24%).

### Use Under Pharmacy Access

Sixty-two percent of respondents (95% confidence interval, 59–66%) said they would likely use pharmacy access to oral contraceptives, roughly the same proportion as for over-the-counter access. Multivariable analysis found that women who were planning to use the pill after their abortion were more likely than those planning to use an IUD or implant to say they would use pharmacy access (odds ratio, 16.7; 95% confidence interval, 10.5–26.8), and women who had had difficulty getting prescription refills were more likely than those who had not to say they would obtain pills in this way (3.0; 95% confidence interval, 1.4–6.2). Compared with white women, respondents of other races or ethnicities were less likely to say they would use pharmacy access (0.4–0.7). However, unlike the case for over-the-counter access, the likelihood of using pharmacy access was not associated with ever-use of oral contraceptives, insurance status or age.

**TABLE 3. Percentage of women reporting reasons for preferences regarding over-the-counter access to oral contraceptives**

Preference and reason	%
<b>Interested in over-the-counter access†</b> (N=391)	
Would save time	63
Hours and locations would be more convenient	54
Would save money	47
Would feel more private	12
Already know the pill is safe	12
Would not want a physical or pelvic exam	10
Would feel the pill is safer without a prescription	7
Would not want to speak with a provider	5
Would not want to speak with a pharmacist	2
<b>Prefer having a prescription‡</b> (N=41)	
Would want to talk with doctor or nurse about the pill	54
Would feel more private	42
Would want to ask questions about using the pill	42
Would want a physical or pelvic exam	29
Would want provider supervision of pill use	24
Would want more information about other options	17
Would be concerned that insurance would not pay	12
Would feel the pill is less safe without a prescription	10
<b>Not interested in progestin-only pill†</b> (N=152)	
Worried they are not as effective as combined pill	49
Prefer combined pill	23
Would not want to take a pill at same time each day	14
Would not want to change current type of pill used	14
Would want to talk about whether they are the right choice	13
Would want more information about other options	11
Would not want a method that changes menstrual periods	10
Would feel the pill is less safe without a prescription	3

†Among women who said they would likely use over-the-counter access.‡Among women who would prefer to obtain oral contraceptives by prescription.

### Progestin-Only Pills

Overall, 46% of all respondents (95% confidence interval, 42–50%) said they would likely use an over-the-counter progestin-only pill. These potential users did not completely overlap with women who reported an interest in using an over-the-counter combined oral contraceptive pill. Among women interested in using an over-the-counter progestin-only pill, 19% said they would not likely use a combined pill if available over the counter. In turn, among women interested in using a combined oral contraceptive, 39% would not be likely to use a progestin-only pill or were not sure.

Among the 152 women who said they would likely use over-the-counter access, but who were not interested in progestin-only pills, 49% were concerned that these formulations would not be as effective as combined oral contraceptives, and 23% would prefer the latter pills (Table 3). Smaller proportions (10–14%) said they would not want to take a pill at the same time each day, would not want to change the type of pill they currently use, would want to discuss with a doctor whether a progestin-only pill is right for them, would want information about other methods or would not want a method that changed their menstrual periods.

### Willingness to Pay

Among the 394 women who said they would likely use over-the-counter oral contraceptives, the mean price they would be willing to pay per month was \$21, and the

median price was \$20. Twenty percent would not be willing to pay any amount; 17% would pay up to \$10; 24% would pay \$11–20; 22% would pay \$21–30; and 17% would pay more than \$30. The mean additional amount women would be willing to pay to speak with a pharmacist was \$5, and the median was \$0. Seventy-two percent of women interested in over-the-counter access would not be willing to pay an additional amount to speak with a pharmacist; 16% would pay up to \$10; 8% would pay \$11–20; and 4% would pay more than \$20.

## DISCUSSION

These results indicate a high level of interest in over-the-counter access to oral contraceptives among this sample of women seeking abortion—higher than among women in the general U.S. population.<sup>13</sup> This elevated interest may reflect that this population has had more difficulties accessing contraceptives in the past or that they are more interested in oral contraceptives generally; indeed, 42% of women in our sample said they planned to use the pill after their abortion, while 33% of women at risk of unintended pregnancy in the general population are pill users,<sup>13</sup> though this discrepancy may reflect a difference between planned and actual use. Notably, one-third of women who were not planning to use a contraceptive after their abortion, and nearly four in 10 of those planning to use condoms (alone or with spermicide), said they would likely use over-the-counter pills, suggesting that such access has the potential to increase the use of effective methods in this population. One-third of women who planned to use an IUD or implant after their abortion reported being likely to use over-the-counter pills if they were available, and this indicates that some women may switch to a less effective method. However, the reduction in use of more effective methods would likely be dwarfed by the number of new pill users who would otherwise be using no method or a less effective one. Notably, survey participants had not yet received contraceptive counseling at the clinics, which would be an opportunity for them to receive information about the relative effectiveness of all methods.

Interest in pharmacy access was similar to that for over-the-counter access; however, most women would not be willing to pay an additional amount to speak with a pharmacist. Given evidence that women are able to accurately identify contraindications to a progestin-only pill using a simple checklist,<sup>18</sup> pharmacist screening would not be necessary if this formulation became available over the counter. Women are also able to accurately identify contraindications to combined oral contraceptives using a checklist, although one study found that 7% of women had unrecognized hypertension that was not identified with the checklist.<sup>10</sup> If a combined oral contraceptive became available over the counter, women could employ other means to check their blood pressure without consulting a pharmacist, including using an automated blood pressure kiosk. A study in El Paso found that women were interested in using automated kiosks for this purpose,<sup>21</sup> and this area should be explored in future research.

In the Direct Access Study in Washington State,<sup>22</sup> which evaluated a collaborative drug therapy protocol to screen and counsel women for safe use of hormonal contraceptives prescribed by community pharmacists, the pharmacy access model was shown to be safe and effective; however, it was ultimately unsustainable on a large scale because insurers refused to cover the pharmacists' consultation time. Despite this challenge for reimbursement, pharmacy access could be an interim step to over-the-counter availability, particularly as it can be legislated at the state level. Pharmacy access to oral contraceptives could also be expanded via a new paradigm under consideration at the U.S. Food and Drug Administration (FDA), in which approval of certain drugs for over-the-counter use would be made under "conditions of safe use." These conditions might require the drug's sale for over-the-counter use in predefined health care settings, including possibly pharmacies.<sup>23</sup>

Interest in an over-the-counter progestin-only pill was lower than that for a combined oral contraceptive, perhaps in part because of concerns about a lower tolerance for missed pills. In addition, use of progestin-only pills is fairly uncommon in the United States; an estimated 4% of oral contraceptive users take these pills.<sup>24</sup> In this context, the 46% of respondents who indicated interest in using an over-the-counter progestin-only pill is actually quite high. Notably, however, 19% of women who expressed interest in using an over-the-counter progestin-only pill would not be interested in an over-the-counter combined pill. In Europe, newer formulations of progestin-only pills that contain levonorgestrel or desogestrel are among the most popular contraceptive methods,<sup>24</sup> and a progestin-only pill could gain traction in the United States.

Nearly half of 15–17-year-olds said they would likely use an over-the-counter oral contraceptive if it were available. Combined with the fact that young women are unlikely to have medical contraindications to the pill,<sup>10</sup> this high level of interest among adolescents should motivate pharmaceutical companies to include this age-group in future research that will be reviewed by the FDA, such as label comprehension and use studies for a proposed over-the-counter oral contraceptive product.

Uninsured women demonstrated greater interest in an over-the-counter oral contraceptive than did women with private insurance. This finding was not unexpected, given that the former likely face significant barriers to access of prescription birth control—including high out-of-pocket expenditures—and may stand to benefit most from an over-the-counter pill.<sup>25</sup> One potential reason for lower interest among insured women is that they may anticipate the price of an over-the-counter pill would be higher than their copayment for a prescribed oral contraceptive. Under the Affordable Care Act, an over-the-counter pill—like all FDA-approved over-the-counter contraceptives—would be covered for women with most private health insurance plans, but insurers may require a prescription.<sup>26</sup> Removal of this prescription requirement might enable more women to take advantage of over-the-counter access, thus leading to an increase in uptake of oral contraceptives.

Finally, women would be willing to pay an average of \$21 per pill pack (median, \$20). A study of out-of-pocket expenditures between 1996 and 2006 found that women spent \$16 per pack, on average (median, \$10),<sup>25</sup> implying that women in our sample would be willing to pay \$5–10 more per pack, on average, for the option of over-the-counter access. This echoes findings from a 2011 national survey of women's interest in over-the-counter oral contraceptives, in which women indicated they would be willing to pay a similar amount for a nonprescription pill.<sup>13</sup> This amount might change as the Affordable Care Act is rolled out and women with private health insurance become acclimated to having no copayment for contraceptives, although they still may be willing to pay something for the convenience of over-the-counter access.

### Limitations

This study has several limitations. First, women were asked about a hypothetical over-the-counter oral contraceptive, and responses may vary in a real-world setting. Second, we recruited a convenience sample of women from a convenience sample of clinics. Although we selected clinics for geographic and demographic diversity, and women's refusal rates were low, this study of abortion patients may not be generalizable.

### Conclusions

Support for and interest in over-the-counter access to oral contraceptives were high in this sample of abortion clients. Initiation and continuation of oral contraceptive use among women at high risk of unintended pregnancy may increase if oral contraceptives are made available without a prescription.

### REFERENCES

- Finer LB and Zolna MR, Unintended pregnancy in the United States: incidence and disparities, 2006, *Contraception*, 2011, 84(5):478–485.
- 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.
- Smith JD and Oakley D, Why do women miss oral contraceptive pills? An analysis of women's self-described reasons for missed pills, *Journal of Midwifery & Women's Health*, 2005, 50(5):380–385.
- Landau SC, Tapias MP and McGhee BT, Birth control within reach: a national survey on women's attitudes toward and interest in pharmacy access to hormonal contraception, *Contraception*, 2006, 74(6):463–470.
- Foster DG et al., Attitudes toward unprotected intercourse and risk of pregnancy among women seeking abortion, *Women's Health Issues*, 2012, 22(2):e149–e155, <[http://www.whijournal.com/article/S1049-3867\(11\)00204-0/abstract](http://www.whijournal.com/article/S1049-3867(11)00204-0/abstract)> accessed Sept. 16, 2013.
- Westhoff CL et al., Oral contraceptive discontinuation: Do side effects matter? *American Journal of Obstetrics & Gynecology*, 2007, 196(4):412.e1–412.e7, <[http://www.ajog.org/article/S0002-9378\(06\)02432-X/abstract](http://www.ajog.org/article/S0002-9378(06)02432-X/abstract)> accessed Sept. 16, 2013.
- Prager SW et al., Risk factors for repeat elective abortion, *American Journal of Obstetrics & Gynecology*, 2007, 197(6):575.e1–575.e6, <[http://www.ajog.org/article/S0002-9378\(07\)00527-3/abstract](http://www.ajog.org/article/S0002-9378(07)00527-3/abstract)>, accessed Sept. 16, 2013.
- Pazol K et al., Abortion surveillance—United States, 2008, *Morbidity and Mortality Weekly Report*, 2011, Vol. 60, No. SS-15.
- Shotorbani S et al., Agreement between women's and providers' assessment of hormonal contraceptive risk factors, *Contraception*, 2006, 73(5):501–506.
- Grossman D et al., Accuracy of self-screening for contraindications to combined oral contraceptive use, *Obstetrics & Gynecology*, 2008, 112(3):572–578.
- Potter JE et al., Continuation of prescribed compared with over-the-counter oral contraceptives, *Obstetrics & Gynecology*, 2011, 117(3):551–557.
- Committee on Gynecologic Practice, American College of Obstetricians and Gynecologists, Committee Opinion No. 544: over-the-counter access to oral contraceptives, *Obstetrics & Gynecology*, 2012, 120(6):1527–1531.
- Grossman D et al., Interest in over-the-counter access to oral contraceptives among women in the United States, *Contraception*, 2013, 88(4):544–552.
- Grossman D et al., Perceptions of the safety of oral contraceptives among a predominantly Latina population in Texas, *Contraception*, 2010, 81(3):254–260.
- Dennis A and Grossman D, Barriers to contraception and interest in over-the-counter access among low-income women: a qualitative study, *Perspectives on Sexual and Reproductive Health*, 2012, 44(2):84–91.
- Jones RK, Upadhyay UD and Weitz TA, At what cost? Payment for abortion care by U.S. women, *Women's Health Issues*, 2013, 23(3):e173–e178, <[http://www.whijournal.com/article/S1049-3867\(13\)00022-4/abstract](http://www.whijournal.com/article/S1049-3867(13)00022-4/abstract)>, accessed Sept. 16, 2013.
- Department of Health and Human Services, Annual update of the HHS poverty guidelines, *Federal Register*, 2011, 76(13):3637–3638.
- White K et al., Contraindications to progestin-only oral contraceptive pills among reproductive-aged women, *Contraception*, 2012, 86(3):199–203.
- Williams RL, A note on robust variance estimation for cluster-correlated data, *Biometrics*, 2000, 56(2):645–646.
- Belsley DA et al., *Regression Diagnostics: Identifying Influential Data and Sources of Collinearity*, New York: Wiley, 1980.
- White K et al., Hypertension among oral contraceptive users in El Paso, Texas, *Journal of Health Care for the Poor and Underserved*, 2013, 24(4):1511–1521.
- Gardner JS et al., Pharmacist prescribing of hormonal contraceptives: results of the Direct Access study, *Journal of the American Pharmaceutical Association*, 2008, 48(2):212–226.
- U.S. Food and Drug Administration, Utilizing innovative technologies and other conditions of safe use to expand access to nonprescription drugs, 2012, <<http://www.fda.gov/drugs/newsevents/ucm289290.htm>>, accessed Sept. 16, 2013.
- Liang S-Y, Grossman D and Phillips KA, User characteristics and out-of-pocket expenditures for progestin-only versus combined oral contraceptives, *Contraception*, 2012, 86(6):666–672.
- Liang S-Y, Grossman D and Phillips KA, Women's out-of-pocket expenditures and dispensing patterns for oral contraceptive pills between 1996 and 2006, *Contraception*, 2011, 83(6):528–536.
- U.S. Department of Labor et al., FAQs about Affordable Care Act implementation (Part XII), 2013, <<http://www.dol.gov/ebsa/pdf/faq-aca12.pdf>>, accessed Sept. 16, 2013.

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