Induced termination of pregnancy is common, with an annual incidence of 1.31 million in the United States. Nearly 90% of these pregnancy terminations take place within the first trimester, and 50% occur before 9 weeks gestational age when procedures are highly effective, simple, and safe. Clinical innovations including medication abortion (MED; also called medical abortion) and aspiration abortion (ASP; often referred to as surgical abortion), have enabled family physicians to incorporate first-trimester abortion into primary care, although few currently provide this service. The potential benefits of increasing the number of family physicians providing abortion care include improving continuity of care at a moment of significant personal health crisis and improving access to care in areas with few abortion providers.

Most family medicine residency programs do not currently provide abortion training. Although limited by low response rates, national surveys suggest that a large portion of residency directors in North America wish to provide educational and training opportunities in early abortion for interested residents in their programs. Information about the obstacles to incorporating abortion care into family medicine residency training is needed by programs considering the feasibility of implementing abortion training. We wished to uncover and assess such obstacles experienced by programs working to develop the clinical and administrative capacity to provide abortion care. Because of the obstacles, few family medicine residency programs currently provide abortion training.
substantial investment in resources required to develop this capacity, we limit our analysis to the developmental period up to the point where abortion care and resident training is initiated.

**Methods**

**Setting**

This study included seven urban family medicine residency programs (six in New York City and one in Philadelphia) participating in the Early Options (EO) initiative. EO was a collaborative faculty training program to develop residency training capacity in primary care-based early (first trimester) abortion care. The focus of the current analysis relates specifically to the faculty development and administrative components of this project and not subsequent resident trainees. The program was grant funded and ran from 2001–2004. Salary was provided for two faculty members from each program (10% time for up to 2 years) for training and program development. Equipment (including trans-vaginal ultrasound) and supplies needed for providing first-trimester MED and ASP procedures were also provided. Programs were considered to have established a training program if abortion care (either MED or ASP) was initiated at the site and available for resident training within 36 months of the initiation of faculty training (12 months after the end of program development support).

Each faculty trainee completed 50 ASP cases in a dedicated abortion facility (non-primary care) before beginning EO faculty development training (EO training). EO training was carried out at a non-residency general family medicine clinical practice providing high-volume abortion care sessions. EO clinical training included one didactic session (4 hours) and two clinical sessions (4 hours each) per month over 12 months. Training was provided during dedicated abortion sessions by family physicians with extensive experience in abortion care. During the EO training, each faculty trainee completed an additional 50 MED and 100 ASP supervised cases. Training in ultrasound dating of early pregnancy included an initial 8-hour intensive program (Department of Radiology, University of Medicine and Dentistry of New Jersey) followed by ongoing training and supervision by a certified ultrasound instructor. Competence for independent ultrasonography was determined by review of 50 cases and a written exam.

Administrative support for each residency program was provided by staff at the central EO training site. Training in the delivery of a structured curriculum in early abortion care for family medicine residents, administrative support for billing and coding, and brief (1 hour) training for nursing staff were provided. Existing educational materials were used when available or developed to address specific training needs. Materials included lecture materials for didactic sessions, self-study materials, and videos.\(^{14,15}\)

This study was approved by the Institutional Review Board committees of the appropriate participating programs.

**Qualitative Interviews**

Over 14 months (2002–2003), 10 formative focus group discussions were conducted addressing the development of resident abortion training capacity and obstacles to such training at each site. These focus groups included the faculty in training (n=14), trainers (n=two–three), EO development support staff (three–four), and research staff (n=one–two). Based on field notes, an initial set of broad themes was identified that informed a semi-structured interview guide and Likert-style survey constructed to elicit in-depth comments from faculty regarding challenges of initiating early abortion care and resident training. The interview guide was tested with one faculty member and modified for clarity.

Individual interviews were then conducted with nine of the participating faculty members (Table 1) representing all of the seven residency programs (two sites had two faculty members interviewed). Interviews began with an open-ended invitation to describe the experiences/challenges of setting up the abortion training at their sites followed by probes about 19 specific obstacles identified in the focus groups if they were not raised spontaneously.

Each faculty member was then asked to rate the relative difficulty of the 19 obstacles on a Likert-style scale from 1–5, (1=didn’t have to do/easiest, 2=somewhat easy, 3=neither easy nor difficult, 4=somewhat difficult, 5=extremely difficult). Participants estimated the difficulty of any tasks not yet undertaken. All faculty who carried out individual interviews had participated in at least four of the preceding focus groups.

**Analysis**

Individual interviews were audiotaped, transcribed, and analyzed with the assistance of qualitative software (N6, QSR International). Three coders (one primary coder and two supplemental coders) familiar with the interviews reviewed all the transcripts for themes related to the initiation of abortion training. Coding conflicts were resolved through consensus when possible. In cases where there was confusion regarding the intent of the interview participants, follow-up interviews by phone or in person were carried out for clarification. A final set of major themes and sub-themes was established by the primary coder.

**Results**

Table 1 summarizes aspects of the participating residency programs. These programs varied in size of faculty (6–18) and number of residents (from 0 in a program still completing its accreditation to 30). All sites provided reproductive health services, including
pregnancy care, with the number of annual residency deliveries ranging from 40–200. Five of seven sites successfully incorporated early abortion services and training in the family medicine residency program (“established sites”), and two sites were unable to establish services in a 36-month period following the initiation of faculty training (“non-established sites”).

The significant issues for establishing on-site early abortion training and services varied by residency program. From the qualitative interviews, five major themes were identified: (1) establishing support, (2) administration, (3) finance, (4) legal matters, and (5) security/demonstrators.

Table 1
Residency Site/Clinical Practice Characteristics

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>Faculty</th>
<th>Residents</th>
<th>Patient Ethnicity</th>
<th>Approximate # of Obstetric Patient Deliveries Per Year</th>
<th>Payor Mix</th>
<th>Months to Implement Program</th>
<th>Implementation Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>7</td>
<td>30</td>
<td>70% Hispanic/Black 10% White 20% Asian</td>
<td>40</td>
<td>70% Medicaid 30% Private insurer</td>
<td>6.0</td>
<td>Established</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>20</td>
<td>24</td>
<td>40% Hispanic/Black 45% White 10% Asian 5% Other</td>
<td>60</td>
<td>60% Medicaid 40% Private insurer</td>
<td>1.3</td>
<td>Established</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>29</td>
<td>12</td>
<td>99% Hispanic/Black 1% White</td>
<td>0</td>
<td>99% Medicaid 1% Private insurer</td>
<td>15.8</td>
<td>Established</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>19</td>
<td>17</td>
<td>70% Black 25% White 5% Other</td>
<td>140</td>
<td>40% Medicaid 60% Private insurer</td>
<td>16.1</td>
<td>Established</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>17</td>
<td>18</td>
<td>73% Hispanic 5.5% Black 5% White 16.5% Other</td>
<td>90</td>
<td>88% Medicaid 10% Private insurer 3% self pay</td>
<td>2.0</td>
<td>Established</td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td>6</td>
<td>0**</td>
<td>55% Hispanic 40% Black 5% Other</td>
<td>200</td>
<td>78% Medicaid 10% Private insurer 12% uninsured</td>
<td>&gt; 36.0</td>
<td>Not established</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>13</td>
<td>18</td>
<td>15% Hispanic 83% Black 10% White 2% Asian</td>
<td>100</td>
<td>25% Medicaid 60% Private insurer 15% self pay</td>
<td>&gt; 36.0</td>
<td>Not established</td>
</tr>
</tbody>
</table>

Average* 8.2*

* Established programs only (does not include “not established” practices).
** Program not yet accepting residents.
A—New York City
B—Philadelphia

Major Themes

1. Establishing Support
Support From Departmental and Administrative Leadership. All respondents reported needing to coordinate the initiation of abortion services with leadership from the institution that, either through support or opposition, could facilitate the program or prevent it from starting. Faculty from established programs identified strong and practical support from departmental chairs, including providing dedicated time to faculty to develop the program, offering useful suggestions, personally participating in key meetings with hospital administrators, and contacting other key stakeholders to facilitate progress. Faculty members from the nonestablished sites reported particular difficulty with this area; one faculty member found a lack of willingness of key
institutional decision makers (including family medicine department chairs, chairs from other departments within the institution, and institutional administrative leaders) to follow through with concrete actions despite stated support for the program.

**Backup by Obstetrics and Gynecology (OB-GYN).** All of the respondents identified the need to establish a backup relationship with colleagues from OB-GYN. In the five established sites, the obstetrics departments were supportive/collaborative and assisted in the initiation of services. In two sites the extent of this collaboration was indicated by patient referrals from the OB-GYN department to the family medicine department for abortion care because the OB-GYN department was not providing comparable abortion services. In contrast, the two nonestablished sites were unable to institute backup relationships with an OB-GYN department.

**Faculty Support.** Adequate faculty support from within the family medicine departments was considered necessary and was present at all sites. One informant stated that even the “least supportive [faculty] members have . . . [said], ‘Well I wouldn’t want to do that myself but I’d be happy to refer [to] you.’”

**Staff Support.** Several sites reported making staff adjustments related to concerns about the program (eg, losing a staff member because of the program or using only certain staff supportive of the program to assist with procedures). However, all sites reported having adequate numbers willing to participate in the abortion sessions.

2. Administration

**Developing Patient Volume.** None of the sites advertised services. Care was provided to patients within the residency practices. This approach was reported to be successful and resulted in a steady flow of patients (two–four new patients per week).

**Ordering Medication.** Ordering medication for medication abortion was generally considered somewhat difficult due to the unique regulatory requirements for mifepristone (part of the most common MED protocol). These related to the need to dispense this medication directly from the physician’s office rather than from a pharmacy (ordering, stocking, monitoring, etc). Some sites reported difficulty ordering the medication because of financial difficulties at the institution. Other sites had no problems either ordering the medication or adding it to the institution formulary.

**Completing Training and Establishing Program.** Competing time demands were a significant obstacle to completing faculty training and implementing the program at one nonestablished site. A faculty member at this site cited lack of departmental support in allocating sufficient time for training and establishing the program. All faculty reported the need to set aside significant time for training and administrative needs of the program.

3. Finance

**Billing.** Billing and reimbursement were two of the most difficult tasks. Several sites had difficulty incorporating billing codes into computerized systems, thereby delaying the timely submission of the charges.

**Reimbursement.** Several sites reported lack of timely feedback on receipt of reimbursements for billed services. All sites made use of support staff from the EO center to provide training to billing departments on charging for abortion services and addressing denied claims. Difficulties with billing and reimbursement were reported to be “not unique to abortion” but similar for all procedures offered at these sites.

4. Legal Matters

**State and Hospital Regulations.** Each site had to navigate state, city, and hospital regulations. To comply with state Department of Health regulations for performance of ambulatory surgical procedures, two sites were required to carry out significant changes to the physical setting of the practices. This delayed introduction of ASP services for more than a year.

Another established site was the first primary care facility in its state to complete the certification process required for abortion providers. This site used hospital legal counsel as well as an abortion advocacy organization to navigate these requirements. One site had little difficulty with this task because its residency practice operated under its hospital’s state registration.

**Malpractice Insurance.** The cost of malpractice coverage for abortion care varied from site to site. At three of the established sites, existing malpractice insurance included provision of abortion care; this generally was true for faculty who already had coverage for providing pregnancy and obstetric care. At another established site, the hospital was required to purchase additional coverage specific to providing abortions. “I was with a malpractice insurance company . . . in the beginning [that] categorically prevented me to do termination as a family practitioner . . . The price is basically double [what] someone who does not perform abortions [would pay].”

5. Security/Demonstrators

Concerns about security and potential protestors emerged as a significant concern in the focus groups. However, individual interviews indicated it was not found to be an issue, and no site experienced dem-
One faculty member attributed this to not publicizing services, and another stated: “We have not needed to establish . . . any security protocols other than the normal ones that are part of . . . having a medical practice.”

**Ranking of Difficulty**

Figure 1 summarizes rankings of relative difficulty for 12 of the 19 issues identified in the focus group discussion as obstacles to initiation of abortion care and training (seven additional issues, mainly administrative, were dropped because they were redundant). Established sites considered financial and legal issues to be among the most difficult areas. In contrast to established sites, the nonestablished sites rated getting support from departmental and institutional leadership as the most difficult obstacle along with getting allocated time to implement the program (completing training and implementing program) and establishing backup from obstetric colleagues. Security was not perceived to be a problem at any of the sites.

**Discussion**

In this exploratory study of seven urban family medicine residency programs in an abortion training collaborative, we identified a range of obstacles to initiating first-trimester abortion care. Five of the seven sites successfully addressed all obstacles and established services and training. Overall, established sites rated financial issues, staff support, state and hospital regulations, and developing patient volume as the most difficult tasks. Non-established sites rated completing faculty training and establishing the program, departmental and institutional leadership support, and lack of OB-GYN backup as their biggest hurdles. Lack of active support by key stakeholders at these institutions was perceived to have hindered implementation of abortion training. Establishing strong chair and departmental faculty support was considered a crucial step by all participating programs.

While we assessed seven programs from two different urban areas, this study is limited in its generalizability by the similar geographic and urban location of service areas.

---

### Figure 1

**Likert Ratings of Key Issues Related to Incorporating Services**

<table>
<thead>
<tr>
<th>Issues</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billing</td>
<td></td>
</tr>
<tr>
<td>Lower-level Staff Support</td>
<td></td>
</tr>
<tr>
<td>Reimbursement</td>
<td></td>
</tr>
<tr>
<td>Developing Patient Volume</td>
<td></td>
</tr>
<tr>
<td>State and Hospital Regulations</td>
<td></td>
</tr>
<tr>
<td>Ordering Medication</td>
<td></td>
</tr>
<tr>
<td>Finding Time to Complete Training and Establish Program</td>
<td></td>
</tr>
<tr>
<td>Support From Department and Administrative Leadership</td>
<td></td>
</tr>
<tr>
<td>Malpractice Insurance</td>
<td></td>
</tr>
<tr>
<td>Faculty Support</td>
<td></td>
</tr>
<tr>
<td>Backup With OB-GYN</td>
<td></td>
</tr>
<tr>
<td>Security/Demonstrators</td>
<td></td>
</tr>
</tbody>
</table>

- **Avg successful sites (#1-5)**
- **Unsuccessful site (#6)**
- **Unsuccessful site (#7)**

Issue categories are listed in descending order of rated difficulty as measured by the averaged score of the five established sites. Scores from the two non-established sites are listed separately.
the programs; the controversies surrounding abortion care may create greater obstacles in other settings and regions. These seven programs also participated in a collaborative grant-funded initiative that facilitated program development. Additionally, this study represents only a snapshot in time in the provision of early abortion services. Changes in laws, faculty, staff, hospital regulations, political climate, provider factors of those establishing services, and other variables may impact the difficulty with which the program can be implemented. Finally, this analysis was limited to the initial faculty training and administrative aspects of implementation. Further studies are needed to assess the ability of these programs to train residents in abortion care.

Despite these limitations, our study provides important information regarding the implementation of abortion services in family medicine residency sites. It is the first assessment of which we are aware that prospectively assesses multiple residencies. Earlier reports have been limited to reporting the successful experiences of individual programs. The present study adds to this work by providing an assessment of the obstacles faced by seven independent programs during development of early abortion services. By including both programs that successfully implemented training (established) and those that were not successful (non-established), we were able to characterize obstacles that were ultimately insurmountable. This provides a more balanced view of the experiences of programs working to develop abortion training.

The themes and specific obstacles identified will help programs considering such services to better plan their efforts. The identification of support for such training among key departmental and institutional stakeholders appears to be an important initial step for assessing the feasibility of developing residency-based abortion training.

Acknowledgments: The Early Options Initiative is funded by a grant from an anonymous foundation.

Preliminary results of this study were presented in part as a poster at the Society of Teachers of Family Medicine 2004 Annual Spring Conference in San Diego, and at the 2003 Association of Reproductive Health Professionals meeting in La Jolla, Calif.

We would like to thank Stanley Henshaw, PhD; Marji Gold, MD; and Carol Petraitis for help with the reported research and manuscript preparation.

Corresponding Author: Address correspondence to Dr Bennett, University of Pennsylvania, 2 Gates Building, 3400 Spruce Street, Philadelphia, PA 19104-4283. 215-614-0849. Fax: 215-662-3591. ian.bennett@uphs.upenn.edu.

REFERENCES