

ISSUE BRIEF #2, DECEMBER 2017

## Evaluating University of California and California State University capacity to provide medication abortion

### Background

California Senate Bill 320 (SB320) would require California public postsecondary educational institutions with an on-campus student health center (SHC) to provide early medication abortion. Medication abortion (MAB) is a safe and effective alternative to aspiration abortion and can be provided to terminate pregnancies up to 10 weeks' gestation. In California, any physician or advanced practice clinician trained to do so may provide MAB. The provider must be able to do the following:

- Assess pregnancy duration
- Diagnose ectopic pregnancy, and
- Provide surgical intervention if needed, either personally or by referral

Facility and equipment requirements are also minimal. Below is a list of some of the elements that may be needed or desired in order to provide MAB:

- Private room for pelvic exams (not required for all MABs) and counseling
- Speculums and light to perform pelvic exam, as needed
- Ultrasound machine with transabdominal and transvaginal transducers (or ability to refer) for ultrasound pregnancy dating and to rule out ectopic pregnancy
- On-site laboratory for urine pregnancy testing, hemoglobin, Rh status, and quantitative serum hCG (or ability to refer to a laboratory)<sup>a</sup>
- 24-hour telephone hotline staffed by clinicians to answer questions and refer patients as needed for emergency care
- If telemedicine is used to provide the service: a laptop with a camera, internet connection, and access to a HIPAA-compliant platform

<sup>a</sup> Hemoglobin is measured to identify patients with severe anemia, for whom aspiration abortion may be preferable. Rh-negative patients are recommended to receive Rhogam with abortion. Serum hCG sometimes is measured to evaluate very early pregnancy or to ensure the abortion is complete after treatment.

### Medication Abortion 101

The gold standard for medication abortion (MAB) includes two drugs, mifepristone followed by misoprostol, which are approved by the US Food and Drug Administration to terminate pregnancies up to 10 weeks' gestation.<sup>1</sup> This regimen is very safe and effective 93-99% of the time, meaning that 1-7% of patients will require a vacuum aspiration (or surgical) abortion to complete the abortion.<sup>1</sup> The risk of death among pregnant women in the US who have a live birth (0.009%) is 14 times greater than that among MAB patients (0.0006%).<sup>2</sup> Serious adverse events, such as hospital admission, surgery, blood transfusion, or serious infection, occur in only approximately 0.3% of cases and are almost always treatable without permanent sequelae.<sup>3</sup>

Although the majority of U.S. abortions (59%) are performed at abortion clinics, 36% are provided at nonspecialized clinics.<sup>4</sup> Some of these clinics are primary care or family medicine clinics that have integrated MAB into their services. At least nine family medicine residency programs in California offer training in abortion care.<sup>5</sup> Qualitative research on patient experiences of abortion in family medicine settings has documented high satisfaction, as well as an appreciation of the privacy, convenience and continuity of care afforded by accessing abortion in their usual primary care setting.<sup>6</sup> SHCs represent another primary care site where abortion services could be offered, and the 2015 American College Health Association survey found that two U.S. colleges were providing MAB on campus.<sup>7</sup>

For more information about this research and other ANSIRH work, please visit [www.ansirh.org](http://www.ansirh.org)

### University of Illinois at Chicago MAB provision

University of Illinois at Chicago student health center has provided MAB on campus safely and successfully since 2006. Initially it was offered by a family medicine physician during one clinical session per week but was expanded due to student schedule variability. Funding was secured for the purchase of an office ultrasound machine, initial supply of mifepristone tablets, and other clinical supplies for uterine aspiration in cases of failed MAB. Trainings were conducted for clinical and nursing staff. Three trained family medicine physicians were available to provide office uterine aspiration if needed, and the department of OB/GYN agreed to serve as backup for operative care. Blood draws are sent to a hospital-based laboratory, and Rhogam can be ordered and delivered in advance for Rh-negative patients.<sup>8</sup>

## Objectives

This study explored the capacity of University of California (UC) and California State University (CSU) SHCs to provide MAB. We documented which reproductive health services are currently provided at SHCs and explored SHC staff perspectives related to MAB provision. The goal of this study is to provide information to the legislature related to the implementation of SB320 and what would be needed for SHCs to safely provide MAB.

### UC and CSU campuses at a glance

#### University of California (UC)

- 251,700 students
- 10 campuses, plus Hastings

#### California State University (CSU)

- 478,638 students
- 23 campuses

## Methods

Key informants from California SHCs were invited to participate in a 30-minute self-administered survey. Key informants included executive directors, medical directors, physicians or advanced practice clinicians (nurse practitioners, physicians' assistants or certified nurse midwives), nurses, health educators, or administrative staff. In-depth data collection, including conference calls and site visits, was completed for a subset of campuses. UCSF Institutional Review Board approved this study (IRB #17-22829), and informed consent was obtained from respondents, who were informed that responses were confidential and anonymous.

## Key findings

Surveys were completed by informants at all 11 UC campuses (referred to hereafter as UCs) and at 20 (87%) of the CSU campuses (referred to hereafter as CSUs). We conducted in-depth data collection at four UCs and one CSU (delays in approval by CSU leadership prevented additional in-depth data collection at CSU sites). All UCs and CSUs have on-campus SHCs and services are contracted to an outside organization at only one UC and one CSU. The size of SHCs varies significantly: monthly patient volumes range from 90 to 10,000 visits at UC SHCs and from 450 to 4,500 visits at CSU SHCs.

All UC students must have health insurance coverage, but CSU students are not required to be insured. All UCs are set up to bill services to their student health insurance plan (SHIP) except one, and none bill other plans, including Medi-Cal or Family PACT.<sup>b</sup> UC SHIP covers abortion care. At CSUs, health services are primarily subsidized by campus-based student health fees. About 50% of CSUs bill Family PACT (11) and 50% do not bill any insurance program.

All SHCs provide primary care services, including basic sexual and reproductive health care and contraception. All SHCs provide emergency contraception on site or by prescription from the pharmacy, but not all provide long-acting reversible contraceptive methods like intrauterine devices (IUDs) and implants (see *Tables 1 and 2, page 6*).

<sup>b</sup> The Family Planning, Access, Care, and Treatment (Family PACT) Program is administered by California's Department of Health Care Services – Office of Family Planning to provide comprehensive family planning services to 1.1 million eligible low income (under 200% federal poverty level) people with no other source of family planning coverage.

All SHCs refer off-campus for abortion care and most refer for ultrasound (one UC provides on-site ultrasound) and miscarriage management (three UCs provide on-site miscarriage management). (See Table 3, page 7.)

### Do SHCs have the capacity to provide MAB?

Table A presents an assessment of SHC capacity for implementing MAB provision given current resources

and protocols at the UC and CSU levels. Most SHCs are already set up with the physical space to provide MAB and the ability to diagnose pregnancy and counsel about pregnancy options (see Table 1, page 6), and all UCs are already equipped with an after-hours triage platform. Elements of MAB service delivery that are feasible to implement with additional support and funding include lab testing, training providers/staff, back-up care in case of emergency, and aspiration services in case of

**Table A. Are SHCs prepared to provide MAB?**

SHC capacity	University of California SHCs (n=11)	California State University SHCs (n=20)
<b>Physical space:</b> private exam room	<ul style="list-style-type: none"> <li>All have a private exam room. For more detail on equipment available, see Table 4.</li> </ul>	<ul style="list-style-type: none"> <li>All have a private exam room. For more detail on equipment available, see Table 4.</li> </ul>
<b>Pregnancy assessment:</b> urine pregnancy tests and/or pelvic exam	<ul style="list-style-type: none"> <li>All have pregnancy testing and counseling (urine test), see Table 5.</li> <li>All have exam table for pelvic exams, see Table 4.</li> </ul>	<ul style="list-style-type: none"> <li>All have pregnancy testing and counseling (urine test), see Table 5.</li> <li>19 have exam table for pelvic exams, see Table 4.</li> </ul>
<b>Lab tests:</b> on-site or send out	<ul style="list-style-type: none"> <li>7 have hemoglobin and hematocrit tests.</li> <li>5 have serum quantitative hCG.</li> <li>4 have Rh Factor.</li> <li>10 send blood draws to outside lab.</li> <li>See Table 5.</li> </ul>	<ul style="list-style-type: none"> <li>14 have hemoglobin and 13 have hematocrit.</li> <li>6 have serum quantitative hCG.</li> <li>4 have Rh Factor.</li> <li>16 send blood draws to outside lab.</li> <li>See Table 5.</li> </ul>
<b>Ultrasound:</b> machine and trained staff for pregnancy dating and ectopic diagnosis	<ul style="list-style-type: none"> <li>4 have ultrasound machine: see Table 4.</li> <li>2 have at least one staff member trained in pregnancy dating, but none do it at SHC currently.</li> <li>Current referral patterns for ultrasound in Table 3.</li> </ul>	<ul style="list-style-type: none"> <li>2 have ultrasound machine: see Table 4.</li> <li>4 have at least one staff member trained in pregnancy dating, but none do it at SHC currently.</li> <li>Current referral patterns for ultrasound in Table 3.</li> </ul>
<b>Trained providers:</b> physicians or advanced practice clinicians (NP, PA, CNM)	<ul style="list-style-type: none"> <li>All have at least one advanced practice clinician.</li> <li>2 have a clinician trained in abortion and women's health. Current SRH services in Tables 1 and 2.</li> <li>9 have an average of 3 staff trained in abortion counseling (range: 0-7).</li> </ul>	<ul style="list-style-type: none"> <li>All have at least one advanced practice clinician.</li> <li>5 have a clinician trained in abortion and women's health. Current SRH services in Tables 1 and 2.</li> <li>18 have an average of 3 staff trained in abortion counseling (range: 0-14).</li> </ul>
<b>After-hours triage:</b> hotline or consultation	<ul style="list-style-type: none"> <li>10 have 24-hour nurse advice hotlines.</li> <li>1 has physician consultation.</li> </ul>	<ul style="list-style-type: none"> <li>9 have 24-hour nurse advice hotlines.</li> <li>10 do not have any after-hours triage.</li> </ul>
<b>Aspiration or surgical abortion:</b> in case of incomplete MAB or ongoing pregnancy, on-site or by referral	<ul style="list-style-type: none"> <li>None provide at SHC.</li> <li>5 refer to Planned Parenthood.</li> <li>5 refer to hospital/urgent care facility.</li> <li>1 refers to private physician's office.</li> <li>See Table 3.</li> </ul>	<ul style="list-style-type: none"> <li>None provide at SHC.</li> <li>18 refer to Planned Parenthood.</li> <li>4 refer to hospital/urgent care facility.</li> <li>6 refer to private physician's office.</li> <li>See Table 3.</li> </ul>
<b>Management of complications:</b> referral to specialist in case of complications	<ul style="list-style-type: none"> <li>Current referrals for miscarriage: See Table 3.</li> <li>15 refer to hospital/urgent care.</li> <li>5 refer to private physician's office.</li> <li>7 refer to local clinic.</li> </ul>	<ul style="list-style-type: none"> <li>Current referrals for miscarriage: See Table 3.</li> <li>17 refer to local clinic or Planned Parenthood.</li> <li>12 refer to private physician's office.</li> <li>17 refer to hospital/urgent care.</li> </ul>

These elements are fully or nearly adequate to provide MAB as is. Any gaps that exist would require minimal funding and/or support to meet.

These elements require more attention, but with funding and support can be addressed. These would vary by site and are not necessarily required.

These elements are necessary and far from being met. Funding would be needed to address these deficiencies.

### Telemedicine medication abortion

Research shows that telemedicine provision of MAB is safe, effective, and acceptable to patients. A recent analysis of almost 20,000 patients who received care at the Planned Parenthood affiliate in Iowa over a seven-year period found that patients undergoing telemedicine MAB did not have a higher risk of adverse events compared to those who had the service with an in-person visit with a clinician.<sup>9</sup> Other research shows that the effectiveness of MAB by telemedicine is just as high as the in-person-visit model, and some measures of patient satisfaction are significantly higher with telemedicine compared with the in-person-visit model.<sup>10,11</sup> Telemedicine improved access to early MAB for patients living in more rural parts of Iowa, and its introduction was associated with a reduction in second-trimester abortion.<sup>12</sup>

incomplete MAB. Self-reported needs from UCs and CSUs for implementing MAB are reported in Table 8. SHCs are most concerned with the need for follow-up care (such as lack of aspiration services on site) and back-up care for emergencies (see Table 10, page 8). UCs are concerned about security and low perceived demand for MAB (see Table 8, page 7, for security systems already in place), and CSUs are concerned about provider training and the need to prioritize basic services given limited fee-based funding (see Table 10, page 8). While all UCs except one are set up to bill student health insurance plans (which currently cover abortion), CSUs would need to assess insurance coverage and billing options for MAB patients.

With adequate funding for ultrasound machines and ultrasound and MAB training, services could be integrated into the health care provided at all of the SHCs. Arrangements could be made for a 24-hour call service and emergency back-up support from local physicians and emergency departments, as well as the possibility of specialist support from the UC Family Planning Fellowships. Additional funding would be needed to support these implementation efforts.

### Models to provide MAB

There are two potential models for providing MAB at SHCs in addition to providing the service on site with current staff. These include providing the service using: 1) a traveling clinician to provide MAB at the SHC on a regular basis (such as weekly); or 2) a remote clinician to provide MAB using telemedicine (the ultrasound and laboratory testing would still need to be obtained locally, ideally at the SHC). (See “Telemedicine medication abortion,” above, for more information about telemedicine provision of MAB.)

Five SHCs (three UCs, two CSUs) are interested in a traveling clinician, but concerned about ensuring timeliness, back-up care, and fear that other patients would avoid going to the clinic on the days MAB is provided. Most SHCs have the necessary equipment to set up telemedicine provision (see Table 6, page 7) and many are interested in telemedicine for other services as well (see Table 7, page 7). Only two UCs and one CSU report current use of telemedicine platforms (for psychiatry and alcohol and substance abuse counseling).

### Conclusions

- The staffing, facility, and equipment requirements to provide MAB are minimal, and we believe that it would be feasible to provide MAB at all of the UC and CSU SHCs.
- Additional investment would be needed to support staff training, equipment, 24-hour nurse hotline, back-up specialty care, and security upgrades in some cases, in order to be able to implement MAB services at the SHCs.
- Visiting clinicians and telemedicine could be models to provide MAB at sites that have limited internal capacity. Telemedicine also may be useful to support early implementation by helping to review ultrasounds and linking family planning specialists to on-site providers.
- The UC system is better equipped to provide the service since students are insured, UC SHIP covers abortion, and most SHCs are able to bill SHIP for services. The CSU sites are not billing for services, and students are not required to have health insurance. The CSU SHCs also generally offer less specialized care compared to the UC SHCs.

- For this report we did not collect objective measures of demand for abortion services among UC and CSU students and relied on informants' perceptions. Many SHCs reported a low perceived demand for abortion care. However, because students may access abortion care without contacting the SHC, we are not confident in the informants' assessment of demand.
- Most informants at SHCs in metropolitan areas thought abortion care was easily available in the community, while others in more remote areas thought there was a need for accessible services. These facilities reported that students in underserved areas face a lack of providers, inability to use their insurance locally, and difficulty finding transportation to more distant services.
- Key informants reported a range of concerns about offering MAB at the SHCs, many of which reflected a lack of understanding about the service. Other concerns, such as professional liability insurance and credentialing of visiting providers, will need to be addressed with implementation.

## References

- 1 American College of Obstetricians and Gynecologists. Medical management of first-trimester abortion. Practice Bulletin No. 143. *Obstet Gynecol* 2014;123:676–92.
- 2 Raymond EG & Grimes DA. The comparative safety of legal induced abortion and childbirth in the United States. *Obstet Gynecol* 2012;119(2):215-9.
- 3 Upadhyay UD, et al. Incidence of emergency department visits and complications after abortion. *Obstet Gynecol* 2015;125(1):175-83.
- 4 Jones RK, Jerman J. Abortion Incidence and Service Availability In the United States, 2014. *Perspect Sex Reprod Health* 2017;49(1):17-27.
- 5 RHEDI. Family medicine residencies with abortion training. Available at [www.rhedi.org/education/residency-training/](http://www.rhedi.org/education/residency-training/).
- 6 Summit AK, Casey LM, Bennett AH, Karasz A, Gold M. "I Don't Want to Go Anywhere Else": Patient Experiences of Abortion in Family Medicine. *Fam Med* 2016;48(1):30-4.
- 7 American College Health Association 2015 PAP & STI Survey. Developed on behalf of the ACHA Sexual Health and Clinical Care Coalition. Prepared January 2016.
- 8 Godfrey EM et al. Medication abortion within a student health care clinic: a review of the first 46 consecutive cases. *J Am Coll Health* 2012;60(2):178-83.
- 9 Grossman D & Grindlay K. Safety of Medical Abortion Provided Through Telemedicine Compared with In Person. *Obstet Gynecol* 2017;130(4):778-782.
- 10 Grossman D et al. Effectiveness and acceptability of medical abortion provided through telemedicine. *Obstet Gynecol* 2011;118(2):296-303.
- 11 Grindlay et al. Women's and providers' experiences with medical abortion provided through telemedicine: a qualitative study. *Womens Health Issues* 2013;23(2):e117-22.
- 12 Grossman D et al. Changes in Service Delivery Patterns After Introduction of Telemedicine Provision of Medical Abortion in Iowa. *American Journal of Public Health* 2013;103(1):73-78.

**Table 1. Reproductive health services provided at SHCs**

Sexual and reproductive health (SRH) service	UCs (n=11)	CSUs (n=20)
Well woman exam	11	20
Cervical cancer screening/Pap smear	11	20
Sexually transmitted infection testing	11	20
Sexually transmitted infection treatment	11	20
HIV counseling/testing	11	19
Pre-exposure prophylaxis for HIV (PrEP)	11	6
Contraception	11	20
Pregnancy testing/counseling	11	20
Transgender care	11	9
Rape crisis counseling	8	16
Miscarriage management care	3	1
Abortion care	0	0
On-site pregnancy test	11	19
Counseling about all options in case of a positive pregnancy test	11	19
On-site ultrasound	1	0
Additional counseling if indicated*	3	7

\*STI screening, psychological counselor, crisis, general counseling, contraceptive or pregnancy counseling

**Table 2. Contraceptive care provided at SHCs**

Contraceptive method	University of California (n=11)		California State University (n=20)	
	On site at SHC	By prescription from SHC	On site at SHC	By prescription from SHC
Male condoms	11	0	20	0
Female condoms	8	2	15	2
Birth control pills	3	8	14	6
Patch	4	7	9	8
Vaginal ring	5	6	10	10
Injection	6	5	13	6
Emergency contraception (Plan B)	7	4	17	3
Emergency contraception (ella)	5	6	10	6
Cervical caps/diaphragm	5	5	7	5
Spermicide	7	2	10	4
IUD insertion/removal*	8		8	
Implant insertion**	9		12	
Implant removal**	9		10	

\*At UCs, IUDs are billed to the student health plan or paid out of pocket. At CSUs they are paid for by the student out of pocket (4), reimbursed by campus fees (1), or billed to Family PACT (8). Two UCs and six CSUs are interested in providing IUDs. Four CSUs may be interested in providing IUDs, but are concerned about expense and lack of trained providers. One UC is not interested in providing IUDs because the services are available in the community.

\*\*At UCs, implants are billed to the student health plan or paid out of pocket. At CSUs, they are billed to students (6) or Family PACT (9). One UC and 4 CSUs are interested in providing contraceptive implants. One UC is not interested because the service is already provided in the community, and 3 CSUs may be interested but are concerned about low demand, billing, and lack of trained providers.

**Table 3. Referral patterns for abortion, ultrasound, and miscarriage\***

Referral facility	Referral for abortion care		Referral for ultrasound		Referral for miscarriage management	
	UC (n=11)	CSUs (n=20)	UC (n=11)	CSUs (n=20)	UC (n=11)	CSUs (n=20)
Local clinics or Planned Parenthood	5	18	6	16	7	17
Physician's office	1	6	8	13	5	12
Hospital/urgent care	5	4	9	8	15	17
Local imaging centers	NA	NA	7	16	NA	NA

\*All SHCs have at least one referral mechanism in place for all three services. NA-not applicable.

**Table 4. Equipment at SHCs**

Equipment	UCs (n=11)	CSUs (n=20)
Electronic health records	10	18
Plan B EC vending machine	3	0
On-site pharmacy	8	19
Private exam room	11	20
Exam table with stirrups to perform pelvic exam	11	19
Speculums	11	20
Light for performing exams	11	20
Blood pressure cuff	11	19
Equipment for IUD insertion	9	9
Sterilization equipment	9	19
Ultrasound machine*	4	2
Vaginal probe transducer	3	3

\*Two UCs and four CSUs have at least one staff member trained in pregnancy dating.

**Table 5. Laboratory tests at SHCs**

Lab tests	UCs (n=11)	CSUs (n=20)
Urine pregnancy test	11	20
Wet mount of vaginal sample	10	18
Hemoglobin	7	14
Hematocrit	7	13
Blood draw for outside lab	10	16
Serum quantitative hCG	5	6
Rh factor	4	4

**Table 6. Telemedicine equipment at SHCs**

Telemedicine equipment	UCs (n=11)	CSUs (n=20)
Computers with internet	11	20
Video cameras	9	10
Internet access	10	20

**Table 7. SHC interest in telemedicine for other services**

Health care service	UCs (n=10)	CSUs (n=20)
Consultation with specialists	6	15
Tele-dermatology	5	13
Mental health services	5	11
Transgender care	3	10
Contraceptive care	1	6

**Table 8. Security systems currently in place at SHCs**

Security in place	UCs (n=11)	CSUs (n=20)
Written security/emergency protocols	11	19
Training for staff in handling emergency/security issues	11	19
Campus security will come if called	10	19
Button in clinic that automatically calls police or campus security when pushed	10	15
Alarm system	6	13
Locked door between waiting room and patient care area	6	9
Surveillance cameras outside health center	2	7
Surveillance cameras inside waiting room	0	4

**Table 9. SHC needs for MAB implementation**

Equipment	UCs (n=10)	CSUs (n=16)
Better resources for follow-up care	8	11
Back-up expert advice	8	12
Facility/staffing improvements for security concerns	8	8
Initial training on MAB for existing staff	7	14
Ultrasound training for staff	7	10
Hiring additional staff trained in MAB	7	10
Values clarification training with staff	7	10
Ongoing training to maintain credentials	6	13
Facility improvements	5	6
Ultrasound machine for dating	5	10
Vaginal probe transducer	3	3

Note: Additional needs mentioned by UCs included more space at facilities including private waiting and recovery areas (3), supervising physician for mid-level providers (1), increased student fees to pay for new costs associated with MAB (1), and increased demand for abortion (1). Additional needs reported by CSUs included facility improvements (5), after hours care (4), and an ability to pay for services for uninsured without setting up elaborate billing mechanism (1).

**Table 10. Perceived benefits and concerns of MAB provision**

MAB provision: perceived benefits and concerns	UC (n=10) CSUs (n=16)	
	UC (n=10)	CSUs (n=16)
<b>Benefits</b>		
Improved access to services	0	7
Convenience	7	8
Normalizing abortion care	3	5
Improved privacy	2	4
Improved continuity of care	2	7
Reduced delays to care	1	9
Reduced costs	0	7
No benefits	1	5
<b>Concerns</b>		
Need to improve security	7	11
Other services take priority	5	12
No/low demand for MAB	4	3
Lack of community support	4	3
Staff opposition	2	8
Limited support from administration	2	6
Lack of support from families	2	2
Fear of losing philanthropic support	1	2

Advancing New Standards in Reproductive Health (ANSIRH) is a collaborative research program in the Bixby Center for Global Reproductive Health in the Department of Obstetrics, Gynecology & Reproductive Sciences at the University of California, San Francisco (UCSF).

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