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## Perspectives on prescribing hormonal contraception among rural New Mexican pharmacists

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### Abstract

**Objectives:** New Mexico is a large rural state with high rates of unintended pregnancy and limited access to contraception. In 2017, the New Mexico Pharmacist Prescriptive Authority Act was amended to allow pharmacists to prescribe hormonal contraception. We explored pharmacist perspectives on prescribing hormonal contraceptives, including perceived barriers and facilitators to implementation in rural New Mexico and opinions on over-the-counter (OTC) access, and prescribing and inserting subdermal contraceptive implants.

**Methods:** This qualitative study recruited rural pharmacists using contact information from the New Mexico Board of Pharmacy and at a state-level pharmacist conference. We conducted semistructured telephone interviews with pharmacists focusing on benefits and concerns about prescribing hormonal contraception, resources required, perspectives on OTC access, and interest in prescribing and placing contraceptive implants. Deidentified transcribed interviews were analyzed by 2 independent coders for emerging themes.

**Results:** From November 2017 to January 2018, we recruited 25 rural pharmacists and conducted 21 interviews. The majority of participants were male (71%), aged over 60 years (43%), and in practice for over 20 years (52%). Interviewees were mostly positive about prescribing

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hormonal contraception citing community benefits. The top 3 perceived barriers were training needs, reimbursement, and liability. The top 3 facilitators were the availability of private areas within pharmacies, pharmacists' role as knowledgeable health care team members, and pharmacist accessibility without appointments. Most pharmacists did not support OTC access to hormonal contraception, and over half were interested in certification to prescribe and place subdermal contraceptive implants.

**Conclusion:** New Mexico pharmacists identified community benefits of pharmacy access to hormonal contraception and were interested in training. Several barriers must be addressed to realize the potential of this practice expansion.

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## Background

New Mexico has a high rate of unintended pregnancy; 41% of recent mothers reported that their pregnancy was not intended.<sup>1</sup> Among women who did not intend to become pregnant, fewer than half reported using contraception at the time of conception.<sup>2</sup> New Mexico was a leader in expanding pharmacy practice to include prescriptive authority. Through the Pharmacist Prescriptive Authority Act (PPAA), first passed in 2001 and amended throughout the years, pharmacists may prescribe immunizations, opiate reversal medication, smoking cessation medications, and emergency contraception.<sup>3</sup> In 2017, an amendment allowed pharmacists to prescribe hormonal contraception, including oral contraceptives, the contraceptive patch and ring, depo-medroxyprogesterone acetate injection, and OTC contraceptives such as condoms,<sup>4</sup> joining other states, including California, Colorado, Hawaii, Maryland, and Oregon with similar access.<sup>5</sup> In addition to the PPAA, New Mexico has separate licensure for advanced-practice pharmacist clinicians, who can prescribe via protocol with an attending prescriber.<sup>6</sup>

To prescribe hormonal contraceptives, New Mexico pharmacists must complete an at-home training module, a live training session, and 2 hours of continuing pharmacy education (CPE) each license renewal period. Women requesting contraceptives from a pharmacist must complete a self-screening questionnaire and consent form; the pharmacist reviews these with the patient and takes a blood pressure reading. The pharmacist can prescribe and dispense the contraceptive at the same visit. With the patient's consent, the pharmacist must notify the patient's primary care provider.

Pharmacy access could increase contraceptive access in our large rural state marked by health care inequities; 23.3% of the state's population lives in rural poverty.<sup>7</sup> All or part of 32 of 33 counties are designated primary care health professional shortage areas by the U.S. Health Resources & Services Administration.<sup>8</sup> Overall, there are 1.44 primary care providers per 1000 population in New Mexico; in 12 rural counties, there is less than 1 provider per 1000 population.<sup>9</sup> In 10 of these counties, there is at least 1 pharmacy. Given these shortages, our population may particularly benefit from pharmacy access to essential medications.

## Objectives

The objective of this study was to explore pharmacist perspectives on prescribing hormonal contraceptives to identify barriers and facilitators to the implementation of rural pharmacy access. We also explored pharmacists' acceptance of OTC access to hormonal contraceptives and interest in training to place subdermal contraceptive implants.

## Methods

### Sample and setting

This qualitative study used semistructured phone interviews with rural New Mexico pharmacists. Researchers identified pharmacists practicing in rural New Mexico from lists published annually by the New Mexico Board of Pharmacy. Pharmacists were eligible to participate if they had an active pharmacist license and primarily practiced in a rural New Mexico county, defined as having an urban population of 20,000 or less.<sup>10</sup> Pharmacists were contacted and recruited through phone calls to their place of employment and during the statewide January 2018 New Mexico Pharmacists Association (NMPhA) Mid-Winter Meeting in Albuquerque, NM. We identified 148 pharmacies in rural New Mexico. Consistent with standards of qualitative research, we employed a purposeful sampling approach aligned with the exploratory aims of this study.<sup>11</sup> We purposefully targeted pharmacies in different regions of rural New Mexico to obtain perspectives from geographically diverse settings, and initially reached 36 pharmacies; 9 pharmacists agreed to participate. Sixteen participants were recruited from the NMPhA meeting. Research coordinators discussed the voluntary nature of the study with eligible participants and obtained verbal informed consent by phone or in person, provided a copy of the consent to the participant, and scheduled the phone interview for a later date. Recruited pharmacists were encouraged to refer other eligible pharmacists to the study using the snowball recruitment method.<sup>12</sup> Participants were offered a \$50 merchandise card as compensation for their time.

### Data collection

The interview guide was developed using themes identified in previously published pharmacist surveys<sup>13–15</sup> with additional input from practicing pharmacists, physicians, and qualitative research experts among the authors. The first author (AH), a practicing pharmacist with experience in community pharmacy and training in qualitative research techniques, conducted all interviews. Between November 2017 and March 2018, enrolled pharmacists participated in interviews, which lasted approximately 20 minutes to 45 minutes and were audiotaped and transcribed verbatim; participant identifiers were removed. Pharmacists also responded to questions about their demographic characteristics. The interview guide is available in Appendix 1. The study was approved by the University of New Mexico Human Research Review Committee (Human Research Protections Office no. 17–237).

## Data analysis

Transcribed interviews were analyzed using NVivo 11 Pro (QSR International, Cambridge, MA). Two coinvestigators independently coded the interview transcripts; differences in coding between the 2 researchers were discussed and resolved through consensus. An a priori codebook was developed with the major themes of barrier, facilitator, benefit, or concern. These themes were then more granularly coded by the specific issue discussed by the participant. We also coded answers about fees, interest in implant provision, and stance on OTC access. We initially planned to recruit 30 participants or until we reached saturation of themes.<sup>16</sup> After coding the first 20 interviews, the team reached a consensus that saturation had been reached as no unique themes were emerging in the interviews.

## Results

We recruited 25 pharmacists, collected participant characteristics on 22 participants, and conducted and analyzed 21 interviews before closing enrollment. Enrolled pharmacists who were unable to be reached for the scheduled interview were contacted again via telephone and e-mail. We were unable to reschedule 1 interview after participant characteristics were collected. When the investigators reached a consensus that data saturation had been reached, we closed recruitment and made no further attempts to reschedule. A summary of participant characteristics for the 21 pharmacists who completed interviews is included in Table 1. The majority of pharmacists were male (71%), over 60 years old (43%), and in practice over 20 years (52%). The majority (81%) of the participants worked in a community pharmacy setting, with 29% practicing at chain pharmacies and 52% at independent pharmacies. All but 3 of the participants were certified in at least 1 prescriptive authority under the New Mexico PPAA, 3 of the participants were licensed as pharmacist clinicians, and 57% held a PharmD.

## Overall perspective

The majority of pharmacists had positive perspectives about hormonal contraception prescriptive authority and its ability to reach underserved populations: *“I feel like the more we can do for our patients—especially in New Mexico the better, ‘cause a lot of people don’t have the money, they don’t have the time, they don’t have the insurance, so we are a huge asset for the communities that we serve.”* (Participant 9, male, chain pharmacy)

Pharmacists felt it would be beneficial to increase access to contraception in their rural area: *“...It’s very hard for women in this area to get into...OB/GYNs, even primary care doctors and I see a lot of women going to urgent cares to get a prescription for birth control. So I think that this will help out a lot* (Participant 7, female, independent pharmacy)

## Barriers

Pharmacists were generally positive about prescriptive authority but were more likely to discuss barriers to providing the service than facilitators (17 barriers coded vs. 6 facilitators).

Most pharmacists (n = 18) identified the need for more training before they would feel comfortable prescribing. Our study was conducted before the development of the state's training program, which is now available online and remotely.

*"I remember the basics, but there would be, I think, a decent amount of learning time and getting everyone, especially myself, back up to date."* (Participant 21, male, independent pharmacy)

Several pharmacists indicated that a program modeled after the state's training for immunization prescriptive authority (an online self-study and live portion, with CPE required each license renewal period) would be adequate, though several mentioned they would like to shadow local obstetrician-gynecologists for more hands-on training.

Many participants (n = 12) expressed concerns about billing and reimbursement for providing the service: *"Having these prescriptive authorities is great, but if we can't get paid for them you're not gonna see anybody doing it."* (Participant 7, female, independent pharmacy)

*"We aren't reimbursed for probably 90% of the work that we do as pharmacists. ... We act as primary care for a lot of people and there's no reimbursement for any of that."* (Participant 9, male, chain pharmacy)

Participants expressed concerns about liability (n = 11): *"I don't have a problem with someone else doing it. I don't feel comfortable doing it myself because I honestly fear the liability of doing it."* (Participant 5, male, independent pharmacy)

Participants also expressed concern that prescribing hormonal contraception could lead to an increased cost of liability insurance. Several pharmacists indicated that they pay out of pocket for their liability insurance. *"That's a big thorn in our side. The first thing they [insurance companies] would do is raise our rates."* (Participant 13, male, independent pharmacy)

Notably, time and staffing did not make the top 3 concerns, but 10 participants mentioned time, and 6 participants mentioned adequate staffing as potential barriers.

### Facilitators

The majority of participants (n = 13) indicated that they had private areas available in their pharmacies to provide the service. Most pharmacists indicated that areas currently being used for immunizations could also be used for hormonal contraception consultations.

*"I've got the space already. I'm sitting in a consulting room right now talking with you."* (Participant 24, male, independent pharmacy)

Despite concerns about lack of training in hormonal contraception, several pharmacists felt confident in their knowledge and training (n = 8), as well as their ability to build on their existing knowledge via training programs and CPE.

*“Education-wise, we’re well equipped walking out of school... and the training will give me a nice refresher on that stuff.”* (Participant 7, female, independent pharmacy)

Participants also indicated that pharmacists are more easily accessible than other health care providers and that women could access their pharmacies without an appointment (n = 7).

*“You make an appointment to see the physician and it will take you sometimes months to get an appointment for things that I do. A pharmacist could have helped easily.”* (Participant 1, male, chain pharmacy)

Another noted that their patients often see them nearly every month: *“It’s a lot easier for us to follow up with them than the physician’s office, ‘cause most of them, if they were seeing a women’s health prescriber, they usually only see them once a year.”* (Participant 25, female, independent pharmacy)

### Additional themes

Pharmacists were asked what would be considered reasonable compensation to provide contraceptive services. Any fee charged would be in addition to the dispensing fee and the actual cost of the product. Answers varied from no fee up to \$200. Fees between \$30 and \$60 were most frequently mentioned (n = 10) and were based on an estimate of 30 to 60 minutes to perform the service.

We asked participants their perspective on OTC access to hormonal contraception. The majority (n = 16) did not support OTC status, citing concerns about the misuse and the possibility of adverse events. *“I think it should be regulated to some extent because there are definitely contraindications and misuse and instruction that needs to be given along with it. So I think it should remain a prescription item, but I think there should be more access to it.”* (Participant 6, female, chain pharmacy)

The insertion of implants is not currently part of the New Mexico protocol. In response to a question about the potential for certification to prescribe and insert subdermal contraceptive implants, over half (n = 12) expressed interest.

### Discussion

Our study found that pharmacists in rural New Mexico have a positive perspective about prescribing hormonal contraception and believe they are qualified to provide the service as knowledgeable and accessible members of the health care team. They expressed concerns about training, reimbursement, and liability as barriers that could prevent them from prescribing.

The positive response to expanded prescriptive authority fits well into existing studies that have surveyed pharmacists’ intent to prescribe contraception.<sup>14</sup> In other states with prescriptive authority for hormonal contraception, pharmacists have indicated that increasing access and reducing unintended pregnancy are key motivators.<sup>17</sup> Pharmacists in California identified increasing access and decreasing costs as facilitators, and lack of financial incentives, time, liability, and patients seeking care less frequently as barriers.<sup>18</sup> In states

without such authority, lack of knowledge and comfort were major barriers; training was identified as the most important tool to address barriers.<sup>19</sup> A survey of pharmacists across the United States identified patient contact as the top motivator for prescribing and safety concerns, cost, and liability as their top concerns.<sup>20</sup>

In a California postimplementation study, only 5.1% of pharmacies reported pharmacist-prescribed contraception, with no differences between rural and nonrural pharmacies.<sup>21</sup> In a postimplementation study in the Oregon Medicaid population, 10% of hormonal contraception prescriptions were written by pharmacists, and 29% of these claims were from rural pharmacies.<sup>22</sup> Rural communities are uniquely affected by provider shortages, poverty, and long distances traveled for care, and the pharmacists in our study acknowledged that these obstacles in their communities could be addressed by pharmacists prescribing hormonal contraception.

The training program developed in New Mexico is now available online to pharmacists statewide with an option to complete the live portion remotely via the Zoom video conferencing platform. An increase in confidence in the knowledge of hormonal contraception may ease some pharmacists' concerns about liability. Uncertainty about reimbursement for the service persists. A bill to provide reimbursement for prescribing pharmacists in New Mexico was introduced during the 2019 legislative session; plans are to reintroduce the legislation in the 2021 session.<sup>23</sup>

## Limitations

Our study has several limitations. Our study has a small sample size. However, this is a qualitative study intended to explore perspectives among rural New Mexico pharmacists, and participants in our study came from regionally diverse settings, including 14 unique cities in rural areas distributed throughout northwest, northeast, southwest, and southeast regions of New Mexico. In addition, our sample was recruited from 14 unique chain and independently owned pharmacies.

The majority of our sample had been practicing for more than 20 years; at the time of their graduation, the entry-level degree for pharmacists was a BSPharm, whereas the current standard is a PharmD.<sup>24</sup> A sample with more recently graduated pharmacists may have provided a different perspective.

We acknowledge that our script may have led participants to discuss barriers more than facilitators, as we were focused on identifying challenges to address before successful implementation.

A strength of our study was the inclusion of pharmacists who worked at both chain and independent pharmacies. Furthermore, our study is unique in reporting the perspectives of rural New Mexico pharmacists who serve an ethnically diverse and medically underserved state.

Strategies to address the barriers in our study include proactive advocacy for legislation to include pharmacist reimbursement for clinical services. Online training could reduce logistical barriers for pharmacists residing in rural areas. In addition, pharmacists should



consider how to use private areas in their pharmacies best and how to maximize their accessibility to patients desiring contraceptive services.

## Conclusion

Rural New Mexico pharmacists who participated in this study are interested in providing hormonal contraception and consider it a benefit to increase access to contraception and expand the pharmacist's role in the health care team. States considering prescriptive authority should identify barriers and facilitators to optimize implementation of pharmacy access and in the design of protocols and training programs for prescribing pharmacists.

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## Appendix 1

### Interview Guide for Pharmacist Interviews

Date modified: 11/07/2017 *We will provide a copy of the proposed NM protocol for the pharmacists to review prior to the interview.*

### Interview Guide

Interview number & region: \_\_\_\_\_

Date: \_\_\_\_\_

Interviewer: \_\_\_\_\_

### Introduction:

Hello and thank you for agreeing to be interviewed.

*[Interviewer introduces themselves.]*

Our goal today is to get your thoughts about a proposed protocol that would allow pharmacists in New Mexico to prescribe hormonal contraception. We have provided you with a copy of the protocol that you have hopefully had a chance to look over. We will ask you a number of questions, and we encourage you to share any of your thoughts and opinions – whether positive, negative, or neutral – on the topic. Your answers will be kept anonymous and will not be shared with anyone other than the investigators of this research. This session will be audio-taped, so before we begin, I want to confirm your consent to the interview being recorded, transcribed and analyzed.



The interview will last about 1 hour and will consist of 10 main questions.

**General:**

What do you think could be the benefits of having pharmacists in New Mexico prescribe hormonal contraception?

**Prompts:** reduce unintended pregnancy

increase access to contraception

increase access to contraception for women residing in rural or underserved areas

strengthen your relationship with other health care providers

If not addressed, ask: Do you think it is difficult for women to access contraception in the area where you practice? Why or why not? Do you think this differs from access for women in urban areas?

What are your concerns about prescribing hormonal contraception?

**Prompts:** Like the idea, but have concerns or objections about how the protocol is written

Moral objections to providing hormonal contraception

Don't have adequate staffing

Concerns about liability

Don't have enough information about the patient's medical history

Concerns about required training

Concerns about personal knowledge of hormonal contraception

Lack of privacy in the pharmacy to perform the screening assessment

Other healthcare providers would object

Lack of reimbursement

Concerned about age range of patients who might ask for the service (e.g., young teenagers)

**Providing this service:**

If you were planning to provide this service in your pharmacy, what additional resources would you need?

**Prompts:** More staffing

Reimbursement

Provider status

Private screening areas

Access to electronic medical records

If you were planning to provide this service in your pharmacy, what would be a reasonable professional fee to charge? This would include the initial questionnaire or screening, blood pressure measurement, and writing the prescription. This does not include any dispensing fee or actual cost of the medication.

If you were planning to provide this service in your pharmacy, what kind of training or education would you want before doing so? What kind of continuing education would you want?

### **OTC vs. Prescription Access:**

What are your thoughts about pharmacists prescribing oral contraception?

**prompts:** Would you be more or less comfortable providing hormonal contraception to a patient as an OTC product as compared to writing a prescription for it? What are your thoughts about over-the-counter access to hormonal contraception?

**Prompts:** What do you think are the benefits of OTC hormonal contraception?

What do you think are the drawbacks of OTC hormonal contraception?

Are you concerned that insurance would not cover OTC hormonal contraceptives?

*The last topic is an exploratory question for future research.*

### **Implants:**

Would you be interested in becoming trained and certified to prescribe and insert hormonal contraceptive implants, such as Nexplanon? Why or why not?

Do you have any other thoughts about prescribing hormonal contraception that you would like to share with us?

### **Conclusion:**

Do you have anything else that we have not addressed that you would like to discuss about this protocol?

Thank you for participating in our interview today. We appreciate your time and insights.

*(Interviewer gathers contact information for gift card)*

## **Pharmacist Demographics Questions**

- 1. What is your practice setting? (check all that apply)**

- Community pharmacy: chain (e.g., Walgreens, CVS, etc.)
- Community pharmacy: grocery store
- Community pharmacy: independent
- Community pharmacy: military or Veterans Affairs or Indian Health Services or other federal
- Ambulatory care or clinic setting
- Hospital pharmacy
- Other institutional pharmacy (nursing home, LTC, etc.)
- Academia
- Other: \_\_\_\_\_

**2. What is your age?**

- 20–29 years
- 30–39 years
- 40–49 years
- 50–59 years
- 60 years

**3. What is your gender identity?**

- Male
- Female
- Transgender
- Other: \_\_\_\_\_

**4. How long have you been practicing as a pharmacist?**

- <1 year
- 1–5 years
- 6–10 years
- 11–15 years
- 16–20 years
- >20 years

**5. Which of the following credentials do you possess?**

- BS Pharm
- PharmD
- Pharmacist Clinician (PhC)

Other: \_\_\_\_\_

**6. Which of the following prescriptive authorities do you possess**

Immunizations

Emergency contraception

Tuberculin skin testing

Other: \_\_\_\_\_

**7. Do you identify as Hispanic, Latino, or of Spanish origin?**

Yes

No

**8. How would you describe your ethnicity? (choose all that apply)**

White

Black

Native American or Alaska Native

Asian

Other: \_\_\_\_\_

**9. Do you identify with any religious affiliation and if so, which one?**

\_\_\_\_\_

**10. Do you identify with any political affiliation and if so, which one?**

\_\_\_\_\_

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**Table 1**

## Baseline participant characteristics

Characteristics	Frequency (n = 21)
Age, y	
20–29	2 (9.5)
30–39	7 (33)
40–49	1 (5)
50–59	2 (9.5)
60	9 (43)
Ethnicity	
White	17 (81)
Black	1 (5)
Native American or Alaska native	0 (0)
Asian	1 (5)
Other	2 (9.5)
Hispanic or Latino	
Yes	4 (19)
No	17 (81)
Gender	
Male	15 (71)
Female	5 (24)
Not answered	1 (5)
Practice setting <sup>a</sup>	
Community pharmacy chain	6 (29)
Community pharmacy independent	11 (52)
Ambulatory care or clinic setting	2 (9.5)
Hospital pharmacy	2 (9.5)
Other institutional pharmacy	2 (9.5)
Other (consulting)	1 (5)
Years of practice	
< 1	0 (0)
1–5	7 (33)
6–10	1 (5)
11–15	1 (5)
16–20	1 (5)
> 20	11 (52)
Credentials <sup>a</sup>	
BSPharm	10 (48)
PharmD	12 (57)
Pharmacist clinician	3 (14)
Other (BCPS)	1 (5)
Prescriptive authority <sup>a</sup>	

Characteristics	Frequency (n = 21)
Immunizations	18 (86)
Emergency contraception	7 (33)
TB skin tests	11 (52)
Other (smoking cessation, naloxone)	13 (62)
Religious affiliation	
None	8 (38)
Baptist	1 (5)
Catholic	6 (29)
Presbyterian	1 (5)
Protestant	1 (5)
Mormon	1 (5)
Methodist	1 (5)
Christian other	2 (9.5)
Political affiliation:	
None	4 (19)
Democrat	6 (29)
Republican	5 (24)
Independent	3 (14)
Other	3 (14)

Abbreviations used: BCPS, Board Certified Pharmacotherapy Specialist; TB, tuberculosis.

Note: Values are n (%).

<sup>a</sup>Totals for these items do not sum to 21 as some participants gave more than 1 response.