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# Access to Emergency Contraception in North Carolina Pharmacies

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## **Acknowledgements**

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NARAL Pro-Choice North Carolina Foundation is the 501 (c) (3) tax-exempt arm of NARAL Pro-Choice North Carolina. The Foundation's mission is to work to support and protect, as a fundamental right and value, a woman's freedom to make personal decisions regarding the full range of reproductive choices through education, training, organizing, legal action, and public policy.

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## Executive Summary

Emergency contraception (EC), also known as the morning-after pill, can be an effective method of preventing an unintended pregnancy if a woman's primary contraceptive method fails or if she has unprotected sex, whether it be consensual or a case of sexual assault. EC is a concentrated dose of ordinary birth control pills that significantly reduces a woman's chance of becoming pregnant if taken up to 120 hours after unprotected intercourse. EC is not the same as mifepristone (RU-486). EC does not cause abortion; rather, it prevents pregnancy by inhibiting ovulation, fertilization, or implantation. In fact, EC does not work if a woman is already pregnant. EC is safe and effective and does not lead to riskier sexual behavior for women. As of August 2006, people who are at least 18 years of age can purchase EC over-the-counter.

In early 2007, NARAL Pro-Choice North Carolina Foundation conducted a survey on access to EC in North Carolina pharmacies as well as pharmacists' knowledge and attitudes concerning EC. The survey resulted in the following findings:

- Nearly one-fourth of pharmacists surveyed stated that EC was the same as the abortion pill, with nearly 5% stating that EC caused an abortion.
- Nearly one-third of pharmacists surveyed were unaware that EC is effective up to 72 hours after unprotected sex or contraceptive failure.
- Only 1 pharmacist out of the 583 surveyed was aware that EC is effective up to 120 hours.
- 11% of pharmacists surveyed would require a prescription for all women seeking EC.
- Forty percent of pharmacists surveyed did not have EC in stock.
- Only 57% of rural pharmacies had EC in stock at the time of the survey.
- Quoted prices for EC differed vastly from \$20 up to \$500.
- Among pharmacies that did not stock EC at the time of the survey, over 30% refused to order it.
- Among pharmacies willing to order EC, there was usually a 2 day wait for the medication.
- Nearly 87% of pharmacies required some form of identification, with several requesting a signature.

These results demonstrate both a lack of knowledge and access to EC in North Carolina pharmacies, particularly in rural areas. Women who wish to access EC after unprotected intercourse face many barriers, including inaccurate information and lack of availability. These findings reveal the need for continued education about EC and improved access to this time-sensitive medication.

## **Introduction**

This study assesses North Carolina community pharmacists' level of knowledge concerning emergency contraception (EC), their ability to provide medically accurate information about EC, and their process of dispensing EC over-the-counter (OTC). Pharmacists were surveyed anonymously by telephone.

## **Background on Emergency Contraception (EC)**

Emergency contraception is a concentrated dose of ordinary birth control pills that, if taken within days of unprotected sex or contraceptive failure, can significantly reduce the chance of pregnancy. EC is effective if taken up to 120 hours after unprotected sex or contraceptive failure, but is more effective the sooner it is taken. EC has the potential to prevent a significant number of unintended pregnancies in the United States. On August 24, 2006, the Food and Drug Administration (FDA) approved EC for OTC use by women 18 years of age and older. Young women under the age of 18 still must have a prescription to purchase EC unless they live in a state where EC is more widely available through a special agreement. Nine states (California, Alaska, Hawaii, Maine, Massachusetts, New Hampshire, New Mexico, Washington, and Vermont) have developed programs to enable pharmacists to provide EC without a prescription to anyone of any age who requests it.

## **Study Design, Methods, and Procedures**

The anonymous survey was administered to North Carolina pharmacists employed at licensed pharmacies that were randomly selected from a North Carolina Board of Pharmacy list. The survey measured whether these pharmacists were able to provide medically accurate information about EC and EC OTC dispensing procedures. There were three main knowledge assessment variables: 1) EC availability (either OTC or by prescription), 2) medically accurate description of EC, and 3) the usage and time requirements for effectiveness of EC. Each caller tried to elicit information pertaining to the knowledge assessment variables both without and with the use of prompting questions. There were six additional access and knowledge questions: 1) did the pharmacy stock EC, and if not, was there a referral to another pharmacy where a customer could obtain EC, 2) knowledge of EC products, 3) knowledge of side effects of EC, 4) ability to dispense EC to customer, 5) cost of product, 6) hours of service. The survey included a comment section to permit the gathering of additional qualitative information from the subjects' responses (Appendix 1).

Researchers also implemented a pilot study in which volunteers, each over 18 years of age, attempted to purchase EC from 16 pharmacies across the state. During this visit, the volunteer asked the pharmacist for EC and also asked the pharmacist one question concerning the time

frame in which EC was effective. Immediately following the visit, the volunteer noted details concerning their interaction with the pharmacist (Appendix 2).

## **Sampling Procedure**

A listing of all licensed pharmacies in the state was obtained from the North Carolina Board of Pharmacy. Of the over 1800 pharmacies listed, approximately 33% were sampled. The random selection process involved sorting the pharmacies by zip code. Then, every third pharmacy in each zip code was randomly selected for the survey. If less than 3 pharmacies were listed for a specific zip code, each of those pharmacies was selected to be surveyed.

## **Results**

### **Pharmacy Survey**

A total of 22 volunteers (20 female and 2 male) made calls from a call center in Raleigh, North Carolina. Volunteers made calls Monday through Saturday. The North Carolina Board of Pharmacy list contained contact information for 1,897 pharmacies. The survey team selected approximately one-third of the list to be surveyed. However more than 1000 telephone calls were required in order to get 583 completed or partially completed surveys. Telephone numbers classified as “disconnected”, “wrong numbers”, or “not retail pharmacies” were deleted from the call list. The survey team attempted to replace each of these numbers with that of another pharmacy from the same zip code that had not been selected previously. In situations in which no one in the pharmacy answered the phone on the first attempt, 2 additional call attempts were made. If after a third attempt the survey was not completed, the survey team attempted to replace the number with that of another pharmacy from the same zip code that had not been selected previously.

Fifteen percent of the counties in North Carolina are classified as rural, which is defined as a county with less than 200 people per square mile. The number of pharmacies in rural counties is much less than the number in urban counties. In order to accurately determine if differences existed between rural and urban pharmacies, we attempted to sample approximately equal numbers of pharmacies in rural and urban counties. Of the 583 pharmacies surveyed, 49.1% of the pharmacies surveyed were in urban counties and 50.9% were in rural locations.

The survey was conducted anonymously, with no pharmacists’ names recorded. Volunteers conducting the survey were instructed to judge and record the sex of the pharmacist who was surveyed. They also recorded each pharmacist’s general demeanor on the telephone on a scale of 1 to 5, with 1 meaning most pleasant and 5 meaning very unpleasant. Among those pharmacists who were surveyed, 56.2% were assumed to be male. Most pharmacists (72.9%) were judged to have a very pleasant or somewhat pleasant demeanor. Only 8.6% of

pharmacists were perceived as somewhat unpleasant or very unpleasant. The remaining pharmacists (18.5%) were seen as neither pleasant nor unpleasant. A few provocative responses obtained by the volunteers are included in Appendix 3.

One goal of the survey was to determine the level of knowledge that North Carolina pharmacists have about EC. The pharmacists surveyed were asked a series of questions about the use of EC, the side effects, and the time frame to take the medication. When asked what the morning-after pill was, many of these pharmacists (41%) gave the brand name Plan B®. More than half of the pharmacists (52.5%) explained that EC was like a high dose of birth control and 10.1% reported that it could be used after unprotected sex.\* When asked how EC or the morning-after pill works, the most popular response from the pharmacists that were surveyed was that it prevents implantation (48.4%), followed by preventing fertilization (20.8%), and suppressing ovulation (8.9%).\* A small percentage (4.3%) of the pharmacists reported that EC causes an abortion, while 3.4 % reported other mechanisms of action including “sloughing of the vaginal area”, “makes you have a period”, and “expels everything down there”. Nearly a quarter of the pharmacists did not answer this question, 24.8%.\*

Many pharmacists were able to distinguish between EC and the “abortion pill,” (mifepristone or RU-486). Among those who answered the question, 66.1% said that EC was different from the abortion pill, while 24.2% said they were the same thing. However, 9.7% were unsure if there was a difference between EC and the abortion pill. Many stated that this distinction was a matter of opinion and was dependent on when one believed a pregnancy started. Those pharmacists who reported a difference between EC and the abortion pill were asked how they differ. More than half (54.6%) of those answering this question said that EC prevented a pregnancy from occurring instead of terminating an established pregnancy.

Given the time-sensitive nature of EC, volunteers asked each pharmacist how long after unprotected sex or contraceptive failure EC is effective. Two-thirds (67.1%) of those surveyed stated that the medication must be taken within 72 hours. The current package insert for EC states that it is very effective up to 72 hours after sex; however, the World Health Organization states that EC is effective up to 120 hours after sex. Only one pharmacist reported that EC could be taken up to 120 hours, while 17 pharmacists, or 2.9% of those surveyed, stated they were unsure of the timeframe in which EC is effective. Many of these pharmacists suggested that the caller look on the Internet for this information.

The most common side effects of EC that were mentioned by the surveyed pharmacists were nausea/vomiting (58.4%), pain/cramping (19.7%), and bleeding (13.6%). Other side effects reported by the pharmacists are listed in Appendix 4. Of note, this question elicited some inaccurate responses such as ovarian/cervical cancer, itching, and hot flashes/menopause.

\*Note that these percentages do not equal 100% as each survey respondent was able to select all that apply.



The survey also sought to determine if North Carolina pharmacists were aware that EC is now available over-the-counter for women 18 years of age and older. When volunteers inquired if they needed a prescription to get the medication, most pharmacists (61.4%) were aware of the age requirement and stated that a prescription was necessary if the recipient was under the age of 18. However, 26.7% stated that a prescription was unnecessary for all women and 11.4% stated that a prescription was always needed. Only four pharmacists did not know if a prescription was needed, and one pharmacist stated that women under 21 years of age needed a prescription.

The limited time period for the effectiveness of EC following sex increases the importance of having the medication immediately available in pharmacies. Among those pharmacists who were asked, 60.7% reported that EC was in stock in their pharmacies. Pharmacies in urban counties were more likely to have EC in stock (64.3%) compared to those located in rural counties (57%). If a pharmacist stated that his/her pharmacy did not have EC in stock, they were asked if he/she would order it. If they would not, the survey ended. Additional questions were asked of pharmacists who would place an order. Among those pharmacists whose pharmacies did not have EC in stock, 69.7% were willing to order it, usually with a two day wait time (41.4%). Among those pharmacists who had EC in stock or who were willing to order it, the vast majority of these pharmacists (86.7%) required some form of age-verifying identification to allow purchase of the medication over-the-counter.

The cost of EC can be a deterrent to its use. The median price for EC reported by the surveyed pharmacists was \$40.46, with a range from \$20 up to one price quote of \$500.

### **Pilot Study: Pharmacy Visits**

Fourteen female and two male volunteers attempted to purchase EC in 16 pharmacies across the state of North Carolina. In eight of the 16 pharmacies, the volunteers were not asked to show identification to prove their age. However, at each pharmacy they visited, the male volunteers were refused EC because the pharmacy required identification for the person who would actually ingest the medication. At each visit, the volunteer asked the pharmacist how soon after sex the medication must be taken to be effective. Six of the 16 pharmacists reported 72 hours; two of these six pharmacists read this information from the box. The other 10 pharmacists suggested taking the medicine as soon as possible, with one pharmacist replying that the medicine must be taken within 48 hours after sex. In two of the 16 pharmacies, EC was not in stock; in these instances, the pharmacy staff either offered to call other pharmacies to see if they had it in stock or referred the volunteer to the Planned Parenthood hotline. The average purchase price of the EC at these visits was \$42.78.

## Conclusion

Although a recent FDA ruling, which allows OTC dispensing of EC, has increased the availability of EC to women across the state of North Carolina, much more work needs to be done in making it equally available to all women. With nearly 40% of pharmacies not stocking EC and 30% of those pharmacies stating that they would not order it, EC will not be an option for many women. The difference in the stocking of EC between pharmacies located in rural and urban counties places a greater burden on rural women who may have to travel significant distances, perhaps in locations lacking public transportation, to purchase this medication. Additionally, the lack of knowledge that was illustrated by some of the pharmacists surveyed regarding the mechanism of action of EC, the time frame in which EC is most effective, and even the legal requirements to purchase EC highlights the need for increased and continuing pharmacist education about EC by both the pharmaceutical company that manufactures it and pharmacy professional organizations.



APPENDIX 1: EC PHARMACY SCRIPT/QUESTIONNAIRE

Pharmacy ID _____
Phone No. _____-_____-_____
Date ____-____-____
Interviewer ID _____

Hello, can I speak to the pharmacist on duty?

“A friend told me about something called emergency contraception. I think you can use it after unprotected sex. I wonder if you could tell me something about it?”

1. Can you tell me what the morning after pill is? (*circle any that the pharmacist says*)

- 0 Emergency Contraception or emergency birth control
- 1 Keeps a woman from getting pregnant after unprotected sex
- 2 Like a high dose of birth control

2. And how does it work? (*circle any that the pharmacist says*)

- 0 Works to suppress ovulation
- 1 Prevent fertilization
- 2 Prevent implantation

3. So, is it the same thing as the abortion pill?

- 0 No
- 1 Yes (*Skip to #5*)
- 2 Not sure

4. How is it different than the abortion pill?

- 0 EC prevents pregnancy
- 1 EC doesn't work if you are already pregnant
- 2 RU-486 terminates a pregnancy

5. How long do I have to take the morning after pill for it to work?

- 0 24 hours
- 1 48 hours
- 2 72 hours
- 3 120 hours
- 4 Other \_\_\_\_\_
- 5 Not sure



6. Are there side effects to using EC?

- 0 Nausea and vomiting
- 1 An abortion
- 2 Bleeding
- 3 Pain/cramping



4 Don't know

7. Do I need a prescription?

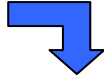
- 0 No
- 1 Yes
- 2 Yes, if you are under 18

8. Do you have it in stock?

- 0 No (*If no skip to #9*)
- 1 Yes



*Skip to #10.*



9. And, how much does it cost? \_\_\_\_\_ (*Skip to #13*)

*If answer to #7 is no, continue here.*

10. Can you order it?

- 0 No (*End of the survey*)
- 1 Yes

11. *If yes*, How long will it take to get in?

- 0 One day
- 1 Two days
- 2 Three days
- 3 Four days
- 4 Other \_\_\_\_\_

12. How much does it cost? \_\_\_\_\_

13. Do I need to bring ID to get it?

- 0 No
- 1 Yes

14. So if I come in today I can buy it?

- 0 No (*If No, ask Question 15*)
- 1 Yes

15. Why not?

- 0 Product not in stock
- 1 Against store policy
- 2 Conflicted with personal beliefs
- 3 Gave no reason/end phone call
- 4 Other (Specify: \_\_\_\_\_)

*Well thanks for the info, I might come in.*

Interviewer Questions:



1. Pharmacist Sex:

- 0 Male
- 1 Female
- 2 Unsure

2. How would you describe the pharmacist's attitude during the call?

1 most pleasant	2 somewhat pleasant	3 neither pleasant or unpleasant	4 somewhat unpleasant	5 very unpleasant
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Interviewer Comments:



**APPENDIX 2: MYSTERY SHOPPER DATA SHEET**

ZIP CODE OF PHARMACY (look on receipt): \_\_\_\_\_

Mystery Shopper Data Sheet

1. Time of visit: \_\_\_\_\_
2. Day of visit: \_\_\_\_\_
3. Gender of pharmacist: \_\_\_\_\_
4. Were you asked to show identification?
  - a. Yes
  - b. No
5. What kind of identification did you show:
  - a. Driver's license
  - b. Birth certificate
  - c. Other: \_\_\_\_\_
6. Approximately, how long did you wait for the pharmacist to dispense the medication?  
\_\_\_\_\_minutes

Question for Pharmacist:

1. How long do I have to take the morning after pill for it to work?
  - 0 24 hours
  - 1 48 hours
  - 2 72 hours
  - 3 120 hours
  - 4 Other \_\_\_\_\_
  - 5 Not sure
2. Did the pharmacist have to look up the answer?
  - a. Yes
  - b. No

Cost:

1. How much did the EC cost? \_\_\_\_\_

General perception:

1. How would you describe the pharmacist's attitude during the visit?

1 most pleasant	2 somewhat pleasant	3 neither pleasant or unpleasant	4 somewhat unpleasant	5 very unpleasant
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1. Did you feel the pharmacist had any feeling about your purchase?
  - a. Yes



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- i. Positive
  - ii. Negative
  - iii. Neutral
- b. No



*APPENDIX 3: PROVOCATIVE/INTERESTING COMMENTS*

- A pharmacist stated that if they did not sell a medication after a certain number of days they were required by the manufacturer to return it.
- When asked about the time frame to take the medication and its side effects, a pharmacist asked a caller if she “could read and write” and that she “could go to any drug store in Chapel Hill and read the box.”
- When asked about side effects, a pharmacist reported that there had been “hospitalizations and deaths that were swept under the rug so that it could get approved.”
- When asked about why he refused to stock the medication, the pharmacist reported that he “doesn’t believe in encouraging promiscuity, but if [the caller] had a prescription I’d fill it.”
- During a survey, a pharmacist asked the caller, “Are you going to buy it here or ask me questions and go somewhere else? I’m here filling prescriptions and I don’t want to waste my time—know what I mean?”
- A pharmacist counseled a caller that “there are some serious questions you need to ask yourself before you use it” and that if “the egg is fertilized, you have a live person”.
- A pharmacist reported that contraception and EC are the same as abortion. “If a person can’t be bothered with a child then they shouldn’t have one.”



*APPENDIX 4: OTHER SUGGESTED SIDE EFFECTS OF EC*

Side Effect	Number of responses
Bloating	4
Blood clots	3
Breast tenderness	15
Diarrhea	11
Dizziness	12
Edema	2
Fatigue	9
High blood pressure	1
Headache	40
Hot flashes/menopause	1
Itching	1
Menstrual changes	1
Moodiness	1
Night sweats	1
Ovarian, cervical cancer	1
Problems conceiving later	1
Uterine infection	1
Vision impairment	1
Weight gain	1