Availability of Over-the-Counter Contraceptive Pills in Pharmacies in Missouri

Brooke Seeker, MS
Kansas City University

Caitlin Leodis
Kansas City University

Catherine Satterwhite, PhD, MSPH, MPH
Kansas City University

Benjamin Grin, MD, MPH
Kansas City University

Hannah Conner, MPH
Kansas City University

Kate Backes, MPH
Kansas City University

Introduction

Background: Every year, over 40% of pregnancies across the US are unintended. Unintended pregnancies are associated with increased maternal and fetal complications, including later entry into prenatal care, decreased breastfeeding rates, and increased rates of smoking during gestation. These risks are greater in rural areas where reproductive care is less accessible. Access to over-the-counter (OTC) contraception, such as emergency contraceptive pills (Plan B) and oral contraceptive pills (Opill), could safely prevent up to 50% of unintended pregnancies.

Objective: The goal of this study was to determine the availability of OTC contraceptive access at pharmacies in the state of Missouri, based on pharmacy location and type.

Methods

Sampling of 1,172 Missouri pharmacies classified as Class A (Community/ Ambulatory)

Selected 100% of rural pharmacies and 26% of urban pharmacies

- **Rural** defined as < 150 people/square mile outside MSA
- **Corporate** pharmacies defined as a group authorized as a single entity, otherwise classified as **independent**

Surveyed 471 pharmacies via 805 phone calls about OTC contraception availability

Analyzed quantitative data using Chi Square and Fisher's Exact tests to compare pharmacy location and type

Collected ad-hoc qualitative data

Figure 1. County representation

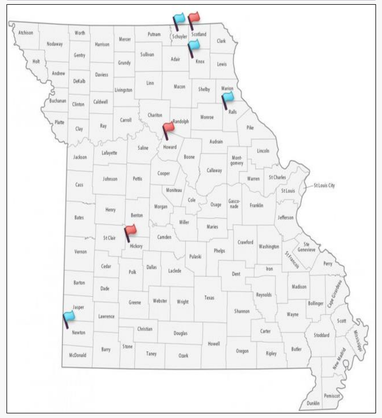
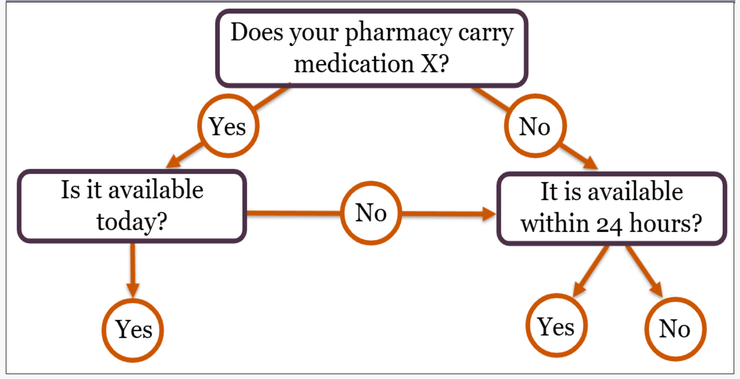


Figure 2. Pharmacy survey question tree



Results

Table 1. Availability of OTC contraception (n=471)

Plan B availability	**N (%)**
At time of call	308 (65.4)
Within 24 hours	404 (85.8)
Opill availability	
At time of call	198 (42.0)
Within 24 hours	370 (78.6)

Table 2. Rural vs. urban access (n=471)

Plan B availability	**Rural (%)**	**Urban (%)**	**p-value**
At time of call	199 (61.2)	109 (74.7)	0.01
Within 24 hours	279 (85.8)	125 (85.6)	0.94
Opill availability			
At time of call	122 (37.5)	76 (52.1)	<0.01
Within 24 hours	255 (78.5)	115 (78.8)	0.90

Table 3. Corporate vs. independent access (n=471)

Plan B availability	**Corporate (%)**	**Independent (%)**	**p-value**
At time of call	216 (76.3)	92 (48.9)	<0.01
Within 24 hours	246 (86.9)	158 (84.0)	0.66
Opill availability			
At time of call	189 (66.8)	22 (11.7)	<0.01
Within 24 hours	230 (81.3)	140 (74.5)	0.01

Key Takeaways

- Urban and corporate pharmacies were more likely to have same-day access to both forms of OTC contraception
- Corporate pharmacies were more likely to have 24-hour access to Opill
- Reported barriers include medication costs, patient privacy concerns, expiring inventory, and awareness of medications

Discussion & Conclusions

Majority Availability Overall for Plan B: A majority of pharmacies carried and had Plan B available at the time of survey, and rates of 24-hour access were similar across all pharmacy types and locations.

Low same-day availability for Opill: Same-day availability was overall much lower for Opill than for Plan B. While a slight majority of urban and corporate pharmacies offered same-day access to Opill, rural and independent pharmacy access was very low.

Pharmacy type impacted 24-hour access to Opill: While the majority of pharmacies could provide access to Opill within 24 hours, corporate pharmacies were more likely to provide this access than independent pharmacies.

Anecdotal Data: Pharmacy staff cited abortion restrictions, privacy concerns, and expiring inventory as the primary barriers to providing access to OTC contraceptives.

Strengths: Our study showed a robust 82.9% response rate representing 93.9% of MO counties. Our sample had excellent rural representation and benefitted from collection of qualitative data.

Limitations: To ensure adequate sampling of rural pharmacies, our study performed an undersampling of urban pharmacies. We collected limited follow-up data due to the nature of the self-reported phone survey.

Implications: Improved access to over-the-counter contraceptives, as well as education and awareness of these methods, is paramount. This need is especially great in rural areas. Further exploration of the relationship between medication access and pharmacy type/location is necessary.

Acknowledgements

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References

1. Samson, F. D, Loren, R., Downing, N., Schroeppel, S., Kelly, P. J., & Ramaswamy, M. (2012). Availability of Emergency contraception in Rural and urban pharmacies in Kansas. *The Journal of Rural Health*, *29*(1), 113–118. https://doi.org/10.1111/j.1748-0361.2012.00429.x
2. Centers for disease control and prevention. (2024). Unintended pregnancy. In *Reproductive Health*. https://www.cdc.gov/reproductive-health/hcp/unintended-pregnancy/index.html
3. Sutton, A., Lichter, D. T., & Sassler, S. (2019). Rural–urban disparities in pregnancy intentions, births, and abortions among US adolescent and young women, 1995–2017. *American Journal of Public Health*, *109*(12), 1762–1769. https://doi.org/10.2105/ajph.2019.305318
4. Trussell, J., Stewart, F., Guest, F., & Hatcher, R. A. (1992). Emergency contraceptive pills: A simple proposal to reduce unintended pregnancies. *Family Planning Perspectives*, *24*(6), 269–273. JSTOR. https://doi.org/10.2307/2135857
5. Kost, K., & Lindberg, L. (2015). Pregnancy intentions, maternal behaviors, and infant health: Investigating relationships with new measures and propensity score analysis. *Demography*, *52*(1), 83–111. https://doi.org/10.1007/s13524-014-0359-9