

Dustin K. Miracle, PharmD, PhD

Curriculum Vitae

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Healthy Kentucky Research Building, Suite 260
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Lexington, KY 40536-0596

Education and Training

Post-Doctoral Fellow , <i>University of Kentucky College of Public Health, Lexington, KY</i> Department: Biostatistics Mentor: Svetla Slavova, PhD Funding: TL1 Postdoctoral Training Program in Clinical and Translational Science – University of Kentucky Center for Clinical and Translational Science (CCTS)	2024-
Doctor of Philosophy , <i>University of Kentucky College of Pharmacy, Lexington, KY</i> Field: Pharmaceutical Sciences – Pharmaceutical Outcomes and Policy Chair: Patricia R. Freeman, RPh, PhD, FAPhA, FNAP Dissertation Title: “Contraceptive Continuity and Access: An Assessment of Recent Utilization Trends, Disparities, and Extended Days’ Supply Policies”	2021-24
Doctor of Pharmacy , <i>University of Kentucky College of Pharmacy, Lexington, KY</i> Honors: Cum Laude	2017-21
Master of Science , <i>University of Kentucky College of Pharmacy, Lexington, KY</i> Field: Pharmaceutical Sciences – Pharmaceutical Outcomes and Policy Chair: Patricia R. Freeman, RPh, PhD, FAPhA, FNAP Thesis Title: “Pharmacist Provision of Contraception Services in Kentucky: Opinions and Policy Interventions”	2018-21
Graduate Certificate , <i>University of Kentucky College of Public Health, Lexington, KY</i> Field: Biostatistics	2018-21
Bachelor of Science , <i>Lincoln Memorial University, Harrogate, TN</i> Field: Chemistry	2013-17

Research Experience

Graduate Research Assistant , <i>University of Kentucky College of Pharmacy, Lexington, KY</i> Department: Pharmacy Practice and Science Supervisor: Patricia R. Freeman, RPh, PhD, FAPhA, FNAP	2021-24
Summer Research Program , <i>University of Kentucky College of Pharmacy, Lexington, KY</i> Department: Pharmacy Practice and Science Supervisor: Patricia R. Freeman, RPh, PhD, FAPhA, FNAP	2019

Professional Experience

Relief Pharmacist , <i>Kroger Health, Louisville, KY</i>	2023-
Pharmacist Intern , <i>Kroger Health, Louisville, KY</i>	2017-21
Pharmacy Technician , <i>Jeff’s Pharmacy, Middlesboro, KY</i>	2017

Honors and Awards

Columbia University NIH Grant Writing Bootcamp Sponsorship Award , <i>University of Kentucky UNITE Research Priority Area</i>	2024
Substance Use Disorder Research Trainee Travel Award , <i>University of Kentucky Center for Clinical and Translational Science</i>	2024
ICPE 2024 Travel Scholarship Award , <i>International Society for Pharmacoepidemiology</i>	2024
Pharmaceutical Sciences Graduate Student Travel Award , <i>University of Kentucky College of Pharmacy</i>	2022-24
Pharmaceutical Sciences Excellence in Graduate Achievement Fellowship Award , <i>University of Kentucky College of Pharmacy</i>	2023
Peter G. Glavinis, Jr. Graduate Scholarship , <i>University of Kentucky College of Pharmacy</i>	2023
ICPE 2022 Travel Scholarship Award , <i>International Society for Pharmacoepidemiology</i>	2022
Linda and Duane Parsons Scholarship Award , <i>University of Kentucky College of Pharmacy</i>	2021
Walmart Scholar Recipient , <i>American Association of Colleges of Pharmacy</i>	2021
Dean's List , <i>University of Kentucky College of Pharmacy</i>	2019-20
David Shipley Student Award , <i>University of Kentucky College of Pharmacy</i>	2019
Scoggins Family Endowed Scholarship in Chemistry , <i>Lincoln Memorial University</i>	2015-16
Trustee Scholarship , <i>Lincoln Memorial University</i>	2013

Publications

Articles Under Review:

- 1) **Miracle DK**, Hammerslag LR, Slavova S, Lei F, Talbert J, Moga DC, Freeman PR. Changes in Hormonal Contraceptive Dispensing Trends among Commercially-Insured Kentucky Females during the COVID-19 Pandemic. *Pharmacoepidemiol Drug Saf.*

Research Articles:

- 1) Oyler DR, **Miracle DK**, Hesener H, Stinson L, Roberts M, Matson A, Freeman PR. Barriers to and Facilitators of Buprenorphine Dispensing for Opioid Use Disorder: Evidence from Focus Groups in Appalachian Kentucky. *J Am Pharm Assoc.* doi: 10.1016/j.japh.2024.102308
- 2) **Miracle DK**, Stinson L, Roberts MF, Oyler DO, Matson A, Knudsen HK, Walsh SL, Freeman PR. Medication Disposal within Reach: Assessing Implementation of Permanent Disposal Receptacles in Community Pharmacies. *Drug and Alcohol Dependence.* Published online November 16, 2024:112500. doi:10.1016/j.drugalcdep.2024.112500
- 3) Marks K, Oyler DR, Strickland JC, Jagers J, Roberts MF, **Miracle DK**, Barnes C, Lei F, Smith A, Mackin E, Martin MC, Freeman PR. Bystander preference for naloxone products: a field experiment. *Harm Reduct J.* 2023;20(1):171. doi:10.1186/s12954-023-00904-9
- 4) Freeman PR, McAninch J, Dasgupta N, Oyler DR, Slavov K, Collins C, Hargrove S, Freeman E, **Miracle DK**, Slavova S. Drugs involved in Kentucky drug poisoning deaths and relation with antecedent controlled substance prescription dispensing. *Subst Abuse Treat Prev Policy.* 2023;18(1):53. doi:10.1186/s13011-023-00561-y

- 5) **Miracle DK**, Smith N, Slavova S, Stinson LK, Roberts MF, Rock P, Walsh SL, Freeman PR. Drug disposal deserts: An assessment of receptacle availability in Kentucky community pharmacies. *J Rural Health*. 2023;1-7. doi:10.1111/jrh.12786
- 6) **Miracle DK**, Slavova S, Brown JR, Dasgupta N, Harris S, Freeman PR. Accuracy and validity of reported opioid prescription days' supply. *Pharmacoepidemiol Drug Saf*. 2022;10.1002/pds.5528. doi:10.1002/pds.5528
- 7) **Miracle DK**, Thomas J, Keenan NF, Kuhn RJ, Schadler AD, Taylor S. A Survey of Pandemic Impacts on Pharmacy Residency Applications, Interviews, and Selection Factors [published online ahead of print, 2022 Mar 29]. *Am J Pharm Educ*. 2022;8954. doi:10.5688/ajpe8954
- 8) **Miracle DK**, Oh G, Singleton M, Kebodeaux CD, Fink JL III, Freeman PR. Kentucky pharmacists' perceptions regarding provision of hormonal contraception. *J Am Pharm Assoc (2003)*. 2021;61(6):e42-e51. doi:10.1016/j.japh.2021.07.010

Other Publications:

- 9) **Miracle DK**. Contraceptive Continuity and Access: An Assessment of Recent Utilization Trends, Disparities, and Extended Days' Supply Policies. *Theses and Dissertations--Pharmacy*. <https://doi.org/10.13023/etd.2024.473>
- 10) **Miracle DK**. Pharmacist Provision of Contraception Services in Kentucky: Opinions and Policy Interventions. *Theses and Dissertations--Pharmacy*. 2021. <https://doi.org/10.13023/etd.2021.185>

Grants and Research Support

Funding Source	Period	Title	PI	Role	Amount	Status
University of Kentucky Center for Clinical and Translational Sciences (Supported by NIH NCATS TL1TR001997)	11/1/2024-10/31/2025	IMPACT-RZV: Investigating Medicare Populations Affected by Pharmacy Closures and Timing of RZV Vaccination	N/A	Lead Investigator	\$61,008	In-Progress
Kentucky Pharmacy Education and Research Foundation	11/1/2022-10/31/2024	COVID-19 Test Result Evaluation and Treatment (TREAT): A Pharmacy-Based Pilot Implementation Study	Miracle	PI	\$1,000	Completed

Scholarly Presentations

Podium Presentations:

International Presentations

- 1) **Miracle DK**, Hammerslag LR, Slavova S, Lofwall M, Talbert J, Walsh SL, Freeman PR. Impact of Kentucky Medicaid Prior Authorization Removal on Dispensing and Continuity of Buprenorphine for the Treatment of Opioid Use Disorder. 40th Annual International Conference on Pharmacoepidemiology and Therapeutic Risk Management. Berlin, Germany. August 2024.

State/Local Presentations

- 2) **Miracle DK**, Hammerslag LR, Slavova S, Lofwall M, Talbert J, Walsh SL, Freeman PR. Buprenorphine Utilization Following Removal of Prior Authorization Requirements in the Kentucky Medicaid Population. University of Kentucky Center for Clinical and Translational Science 2025 Spring Conference. Lexington, Kentucky. April 2025. (Accepted)
- 3) **Miracle DK**, O'Rourke C, Lei F, Oyler DO, Slavova S, Freeman PR. Variations in Buprenorphine Dispensing among Appalachian Kentucky Counties: Exploration and Preparation for the P2P-BRIDGE Study. Kentucky Pharmacists Association 2024 Annual Meeting. Louisville, Kentucky. June 2024.
- 4) **Miracle DK**, Stinson L, Oyler DR, Roberts M, Matson A, Walsh SL, Knudsen H, Freeman PR. Assessing Implementation of Permanent Medication Disposal Receptacles in Kentucky Community Pharmacies. Kentucky Pharmacists Association 2024 Annual Meeting. Louisville, Kentucky. June 2024.
- 5) Roberts MF, **Miracle DK**, Stinson LK, Oyler DR, Matson A, Freeman PR. Barriers and Facilitators of Buprenorphine Dispensing in Appalachian Kentucky: Key Messages from Community Pharmacy Focus Groups. Kentucky Pharmacists Association 2024 Annual Meeting. Louisville, Kentucky. June 2024.

Poster Presentations:

International Presentations

- 1) Hammerslag LR, Silwal A, Lofwall M, Fanucchi L, Freeman PR, **Miracle DK**, Lei F, Marks K, Slavova S, Walsh S, Talbert J. Recent Trends in the Utilization of Long-Acting Injectable Buprenorphine in Kentucky. College on Problems of Drug Dependence 86th Annual Meeting. Montreal, Québec, Canada. June 2024.
- 2) **Miracle DK**, Hammerslag LR, Slavova S, Lei F, Freeman PR. Impact of COVID-19 on Hormonal Contraceptive Dispensing in Kentucky: An Interrupted Time Series Design. 39th Annual International Conference on Pharmacoepidemiology and Therapeutic Risk Management. Halifax, Nova Scotia, Canada. August 2023.
- 3) **Miracle DK**, Slavova S, Dasgupta N, Harris S, Brown J, Freeman PR. Accuracy and Validity of Reported Opioid Prescription Days' Supply. 38th Annual International Conference on Pharmacoepidemiology and Therapeutic Risk Management. Copenhagen, Denmark. August 2022.

National Presentations

- 4) Roberts MF, **Miracle DK**, Stinson LK, Oyler DR, Matson A, Freeman PR. Barriers and Facilitators of Buprenorphine Dispensing in Appalachian Kentucky: Key Messages from Community Pharmacy Focus Groups. American Pharmacists Association 2024 Meeting. Orlando, Florida. March 2024.
- 5) **Miracle DK**, Hammerslag LR, Slavova S, Freeman PR. Trends in Hormonal Contraception Dispensing during the COVID-19 Pandemic in Kentucky: An Interrupted Time Series Design. American Pharmacists Association 2023 Meeting. Phoenix, Arizona. March 2023.
- 6) **Miracle DK**, Slavova S, Dasgupta N, Harris S, Brown J, Freeman PR. Pharmacists' Experience Dispensing Abuse Deterrent Formulation Opioids: A Multistate Survey of Dispensing Pharmacists. American Pharmacists Association 2022 Meeting. San Antonio, Texas. March 2022. Poster selected for additional presentation at the APhA-APRS (Academy of Pharmaceutical Research and Science) ESAS (Economic, Social and Administrative Sciences) Poster Session Forum
- 7) **Miracle DK**, Kebodeaux CD, Fink JL III, Oh G, Freeman PR. Student Pharmacist Perceptions Regarding Provision of Hormonal Contraception Services. American Pharmacists Association 2021 Meeting. Virtual. March 2021.
- 8) **Miracle DK**, Kebodeaux CD, Fink JL III, Oh G, Singleton M, Freeman PR. Pharmacist Provision of Hormonal Contraceptive Services in Kentucky: Characteristics Associated with Pharmacist

Support Level. American Society of Health-System Pharmacists Midyear 2020 Meeting. Virtual. December 2020.

- 9) **Miracle DK**, Kebodeaux CD, Fink JL III, Freeman PR. Kentucky Pharmacists’ Perceptions on Provision of Hormonal Contraception. American Pharmacists Association 2020 Meeting. Virtual. March 2020.

State/Local Presentations

- 10) Miracle DK, Slavova S, Talbert J, Moga DC, Freeman PR. Kentucky’s Contraceptive Deserts: Geographic Variations in Contraceptive Care Measures among Medicaid Enrollees. University of Kentucky 2025 Public Health Showcase. Lexington, Kentucky. April 2025. (Accepted)
- 11) **Miracle DK**, Mackin E, Poole R, Freeman PR. COVID-19 Test Result Evaluation and Treatment (TREAT): A Pharmacy-Based Pilot Implementation Study. Kentucky Pharmacists Association 2023 Annual Meeting. Bowling Green, Kentucky. June 2023.
- 12) **Miracle DK**, Kebodeaux CD, Fink JL III, Freeman PR. Kentucky Pharmacists’ Perceptions on Provision of Hormonal Contraception. Kentucky Pharmacists Association 2021 Annual Meeting. Louisville, Kentucky. June 2021. (*Encore*)
- 13) **Miracle DK**, O’Rourke C, Lei F, Oyler DO, Slavova S, Freeman PR. Variations in Buprenorphine Dispensing among Appalachian Kentucky Counties: Exploration and Preparation for the P2P-BRIDGE Study. University of Kentucky Substance Use Research Event 2024. Lexington, Kentucky. April 2024.
- 14) **Miracle DK**, Stinson L, Oyler DR, Roberts M, Matson A, Walsh SL, Knudsen H, Freeman PR. Assessing Implementation of Permanent Medication Disposal Receptacles in Kentucky Community Pharmacies. University of Kentucky Center for Clinical and Translational Science 2024 Spring Conference. Lexington, Kentucky. April 2024
- 15) **Miracle DK**, Slavova S, Dasgupta N, Harris S, Brown J, Freeman PR. Accuracy and Validity of Reported Opioid Prescription Days’ Supply. University of Kentucky 2023 Public Health Showcase. Lexington, Kentucky. April 2023. (*Encore*)
- 16) **Miracle DK**, Slavova S, Dasgupta N, Harris S, Brown J, Freeman PR. Accuracy and Validity of Reported Opioid Prescription Days’ Supply. University of Kentucky Substance Use Research Event 2023. Lexington, Kentucky. April 2023. (*Encore*)
- 17) **Miracle DK**, Slavova S, Dasgupta N, Harris S, Brown J, Freeman PR. Pharmacists’ Experience Dispensing Abuse Deterrent Formulation Opioids: A Multistate Survey of Dispensing Pharmacists. University of Kentucky Substance Use Research Event 2022. Lexington, Kentucky. March 2022. (*Encore*)
- 18) **Miracle DK**, Kebodeaux CD, Fink JL III, Oh G, Singleton M, Freeman PR. Pharmacist Provision of Hormonal Contraceptive Services in Kentucky: Characteristics Associated with Pharmacist Support Level. University of Kentucky Center for Clinical and Translational Science 2021 Spring Conference. Virtual. April 2021. (*Encore*)

Teaching Experience

Course Number	Course Name	Role	Program	Years Taught
PHR 933	Pharmaceutical Outcomes, Policy, and Public Health	1 Lecture (~140 Students) Topic(s): Policy Process and Evaluation using Quasi-Experimental Methodologies	PharmD	2021- Annually
PHR 915	Pharmacy as a Profession	2 Lectures (~140 Students) Topic(s): Informed Consent and Patients’ Rights	PharmD	2022- Annually

PPS 601	Introduction to Epidemiology: Applications in Pharmacy	2 Lectures (~5 Students) Topic(s): Study design, Bias, Confounding, and Effort Modification	Graduate	2021-23 Annually
PHR 938	Integrated Drugs and Diseases II: Endocrine Diseases	1 Lecture (~140 Students) Topic(s): Pharmacist Provision of Hormonal Contraception	PharmD	2021-22 Annually
PPS 750	Pharmaceutical Outcomes and Policy Journal Club	1 Lecture (~10 Students) Topic(s): Manuscript Writing and Publication	Graduate	2022
PPS 778	Pharmacy Practice and Science Seminar	1 Lecture (~10 Students) Topic(s): Bias and Confounding	Graduate	2022
PHR 915	Pharmacy as a Profession	1 Lecture (~140 Students) Topic(s): Introduction to Pharmaceutical Outcomes and Policy Research	PharmD	2021
PHR 923	Wellness and Health Promotion I	2 Lectures (~140 Students) Topic(s): Vitamin and Mineral Supplementation	PharmD	2021

Continuing Education Presentations

Live Presentations:

- 1) **Miracle DK.** Thriving in Expanded Access: Pharmacy's Role in the Evolving Contraceptive Landscape. Presentation given at the Kentucky Pharmacists Association 2024 Annual Meeting; June 8, 2024. (0.1 CEU)
- 2) **Miracle DK.** Pharmacists as an Access Point for Contraceptive Care: Outcomes, Opinions, and Opportunities. Presentation given at the Kentucky Society of Health-System Pharmacists Spring 2022 Meeting; May 17, 2022. (0.05 CEU)

Enduring Content:

- 3) **Miracle DK,** Brooke Hudspeth, Adrienne W. Matson. Self-Care Conditions Protocol: Emergency Contraception Training for Kentucky Pharmacists. Available online at <https://www.cecentral.com/ec>; 2021. (0.1 CEU)
- 4) **Miracle DK.** What's New? Your 2023 OTC Drug Update. The Kentucky Pharmacist. 2023. (0.1 CEU)

Invited Talks

- 1) **Miracle DK,** Walsh S, Oyler DO, Knudsen H. *Webinar.* HEALing Communities Study: Outcomes and Lessons Learned. Lunch and Learn Series. University of Kentucky Office of the Vice President for Research. November 6, 2024.
- 2) **Miracle DK.** *Webinar.* Pharmacist Provision of Emergency Contraception in Kentucky. Lunch and Learn Series. All-Access EKY. January 31, 2022.
- 3) **Miracle DK.** *Webinar.* Kentucky Contraceptive Policy and Research Update. Birth Control Pharmacist States Forum. September 13, 2022.

Professional Service

American Association of Colleges of Pharmacy (AACP)
Member
Walmart Scholar Program Awardee (2021)

2021-

American Pharmacists Association (APhA) Member Section Delegate (2022-Present) Postgraduate Advisory Committee Member (2022-Present) Research and Science Community Strategic Planning Summit Participant (2024)	2017-
Association for Clinical and Translational Science (ACTS) Member	2024-
International Society for Pharmacoepidemiology (ISPE) Member Education Committee Member (2024-Present) Public Policy Committee Member (2024-Present) Annual Meeting Travel Scholarship Awardee (2022, 2024)	2022-
International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Member	2025-
Kentucky Pharmacists Association (KPhA) Member Professional Affairs Committee Member (2020-Present) Government Affairs Committee Member (2021-Present) Legislative Roundtable Session Moderator (2021)	2017-
Kentucky Society of Health-System Pharmacists (KSHP) Member Spring Meeting Poster Session Judge (2022)	2025-

Public Service

All Access EKY

Advisory Board Member (2020-Present)

Kentucky Board of Pharmacy

Primary Author, Statewide Board-Approved Protocols for Kentucky Pharmacy Practice:

- Self-Care Conditions Protocol: Hormonal Contraception
- Self-Care Conditions Protocol: Emergency Contraception

Full Circle Supports

Community Volunteer (2017-2021)

Kentucky Opioid Response Effort (KORE) Mobile Harm Reduction Unit

Volunteer Naloxone Distributor (2020-22)

Institutional Service

University of Kentucky College of Pharmacy

NAPLEX Result Improvement Steering Committee Member (2024)

Department of Pharmacy Practice and Science Chair Search Committee Member (2023-24)

Scholarly Service

Abstract Reviewer:

- International Society for Pharmacoepidemiology (2023-Present)
- American Pharmacists Association (2023-Present)

Manuscript Peer Reviewer:

- Pharmacoepidemiology and Drug Safety (2024-Present)
- Harm Reduction Journal (2025-Present)

Licenses, Trainings, and Certifications

Registered Pharmacist (022215), <i>Kentucky Board of Pharmacy</i>	2021-
National Provider Identifier (1487380010), <i>Centers for Medicare and Medicaid Services</i>	2022-
Teaching Certificate for Pharmacists, <i>American Society of Health-System Pharmacists</i>	2023
Certified Basic Life Support Provider, <i>American Red Cross</i>	2017-

- Professional References Available Upon Request -