

Khanh N.C. Duong

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Research Interests

Health Economics & Outcomes Research (HEOR); Health Technology Assessment (HTA); Evidence Synthesis (Systematic Review, Meta Analysis, Umbrella Review); Health Equity; Artificial Intelligence in Healthcare; Traditional Medicine

Education

- **Ph.D. in Pharmacotherapy Outcomes Research and Health Policy**
University of Utah, Utah, USA 2025
- **M.Sc. in Health Technology Assessment**
Mahidol University, Bangkok, Thailand 2020
- **B.Sc. in Pharmacy**
University of Medicine and Pharmacy Ho Chi Minh City, Vietnam 2015

Working Experience

- Lecturer & Principal Investigator, University of Health Sciences, VNU-HCM, HCMC, VN
11/2020 – present
(On academic leave to pursue PhD degree: Aug 2021 – Oct 2025)
- Graduate Research Assistant, Department of Pharmacotherapy, College of Pharmacy,
University of Utah, UT, US 8/2021- 10/2025
- Clinical Pharmacist, Hoan My Sai Gon General Hospital, HCMC, VN 2016-2017
- Clinical Pharmacist, Tan Hung General Hospital, HCMC, VN 2015-2016

Research Experience

- 2025 - Present Health Evidence Linking Policy (HELP) Research Group, VNU-HCM
- Role: Co-Founder & Scientific Lead
- 2021 - 2025 PhD Dissertation: **“Evaluating the impact of COVID-19 mobile vaccine clinics in Utah on health and economic outcomes”**
- Funding Sources:**
- Centers for Disease Control and Prevention (US CDC) (under SHEPherd_RFTOP 2021 -1A-015)

- Center for Forecasting and Outbreak Analytics – Centers for Disease Control and Prevention (US CFA – CDC) (under ForeSITE)
- Kuramoto Graduate Research Fellowship 2024-2025, College of Pharmacy, University of Utah, Utah, US

Main advisor: Nathorn Chaiyakunapruk, PharmD, PhD. Department of Pharmacotherapy, College of Pharmacy, University of Utah, UT, US.

- 2024 – 2025 Project: “**Forecasting and Surveillance of Infectious Threats and Epidemics (ForeSITE)**”
- **Funding Agency:** Center for Forecasting and Outbreak Analytics – Centers for Disease Control and Prevention (CFA – CDC)
 - Role: Research Assistant
- 2021 – 2024 Project: “**Research to Improve National and Global Responses to Emerging Health Threats: Accelerating the Integration of Novel Data Streams in Mathematical Models (SHEPheRD_RFTOP 2021 -1A-015)**”
- **Funding Agency:** Centers for Disease Control and Prevention (CDC)
 - Role: Research Assistant

Publications

Peer-reviewed Papers

- 2026 Nguyen UT, Nguyen MH, **Duong KNC**, Nguyen PTL, Cao HTT, Nguyen QN. Risk factors of anticoagulation-related bleeding in hospitalized patients: a systematic review and meta-analysis. *Expert Opinion on Drug Safety*. 2026; 23:1-12.
- 2025 Kim J, **Duong KNC**, Duru EE, Weir R, Manotas K, Kleinschmit K, Fischer A, Weir P, Wilson FA. Impact of COVID-19 on Incident Depression and Anxiety: A Population-Based Observational Study Using Statewide Claims Data. *Healthcare (Basel)*. 2025;13(14):1638
- 2025 Nguyen UT, **Duong KNC**, Nguyen PTL, Tran HN, Nguyen HM, Cao HTT, Vu HD, Nguyen HA. Triggers for identifying anticoagulation-associated adverse drug events in hospitalized patients: a systematic review and meta-analysis. *International Journal of Clinical Pharmacy*. 2025; 47(5):1132-1149.
- 2025 **Duong KNC**, Veettil SK, Nelson RE, Jones BE, Pavia AT, Nguyen DT, Jones MM, Samore MH, Zickmund SL, Galyean P, Chaiyakunapruk N. COVID-19 vaccine rollout strategies in Utah from local health departments’ perspectives: A qualitative analysis of focus group discussions. *Health Equity*. 2025; 13;9(1):31-40.
- 2025 **Duong KNC**, Schmutz HW, Ben-Umeh KC, Duru EE, Rose N, Trom C, Chaiyakunapruk N, Willis C. Real-world clinical and economic outcomes from rapid start antiretroviral therapy in HIV: systematic review and meta-analysis. *AIDS*. 2025;39(3):241-252
- 2024 Phung TL, Ong DT, Ngo NTN, Pham TT, Nguyen HT, **Duong KNC**, Dang MTN, Alcusky MJ, Amante DJ, Nguyen HL. Economic evaluation of fixed-dose drug

- combinations: A systematic review. *Journal of Applied Pharmaceutical Science*. 2024;14(12):001–026.
- 2024 Noviyani R, **Duong KNC**, Ngo NTN, Kularatna S, Widatama A, Srinadi IGAM (2024). Empirical antibiotics versus definitive antibiotics for Sepsis patients in Indonesia: A cost-effectiveness analysis. *Journal of Applied Pharmaceutical Science*. 2024;14(10):053–059.
- 2024 **Duong KNC**, Nguyen DT, Kategeaw W, Liang X, Visnovsky LD, Veetill SK, McFarland MM, Nelson RE, Jones BE, Pavia AT, Coates E, Khader K, Love J, Yon GV, Zhang Y, Willson T, Dorsan E, Toth D, Jones MM, Samore MH, Chaiyakunapruk N. Incorporating Social Determinants of Health into Transmission Modeling of COVID-19 Vaccine in the US: A Scoping Review. *The Lancet Regional Health of Americas*. 2024;35:100806.
- 2024 Nguyen PTL, Phan TAT, Vo VBN, Ngo NTN, Nguyen HT, Phung TL, Kieu MTT, Nguyen TH, **Duong KNC** (*corresponding author*). Medication errors in emergency departments: a systematic review and meta-analysis of prevalence and severity. *International Journal of Clinical Pharmacy*. 2024;46(5):1024-1033.
- 2023 Quynh PNN, Nguyen PTL, Nguyen HT, Phung T. L., Nguyen D., **Duong KNC** (*corresponding author*). PARP inhibitors in newly diagnosed or recurrent ovarian cancer maintenance therapy: evidence of efficacy and safety from randomized controlled trials. *Biomedical Research and Therapy*. 2023; 10 (12), 6090-6102.
- 2023 **Duong KNC**, Nguyen DV, Chaiyakunapruk N, Nelson RE, Malone DC. Cost-effectiveness of HLA-B*58:01 testing to prevent Stevens-Johnson syndrome/toxic epidermal necrolysis in Vietnam. *Pharmacogenomics*. 2023;24(13):713-724.
- 2023 **Duong KNC**, Le LM, Veetill SK, Saidoung P, Wannaadisai W, Nelson RE, Friedrichs M, Jones BE, Pavia AT, Jones MM, Samore MH, Chaiyakunapruk N. Disparities in COVID-19 related outcomes in the United States by race and ethnicity pre-vaccination era: an umbrella review of meta-analyses. *Frontiers in Public Health*. 2023;11:1206988.
- 2023 Ngo NTN, Nguyen HT, Nguyen PTL, Vo TTT, Phung TL, Pham AG, Vo TV, Dang MTN, Nguyen Le Bao T, **Duong KNC** (*corresponding author*). Health-related quality of life in breast cancer patients in low-and-middle-income countries in Asia: a systematic review. *Frontiers in Global Women's Health*. 2023;4:1180383.
- 2023 **Duong KNC**, Tan CJ, Rattanasiri S, Thakkinstian A, Anothaisintawee T, Chaiyakunapruk N. Comparison of diagnostic accuracy for diabetes diagnosis: A systematic review and network meta-analysis. *Frontiers in Medicine*. 2023;10:1016381.
- 2022 Chhibber A, Kharat A, **Duong KNC**, Nelson RE, Samore MH, Wilson FA, Chaiyakunapruk N. Strategies to minimize inequity in COVID-19 vaccine access in the US: Implications for future vaccine rollouts. *The Lancet Regional Health of Americas*. 2022;7:100138.
- 2022 Phung TH, **Duong KNC**, Junio Gloria MA, Nguyen TK. The association between HLA-B*15:02 and phenytoin-induced severe cutaneous adverse reactions: a meta-analysis. *Pharmacogenomics*. 2022;23(1):49-59.
- 2021 Nguyen PTL, Nguyen TBL, Pham AG, **Duong KNC**, Gloria MAJ, Vo TV, Vo BV, Phung TL. Psychological Stress Risk Factors, Concerns and Mental Health Support Among Health Care Workers in Vietnam During the Coronavirus Disease 2019 (COVID-19) Outbreak. *Frontiers in Public Health*. 2021;9:628341.

- 2021 **Duong KNC**, Nguyen LBT, Nguyen TLP, Vo VT, Phung LT, Pham GA, Anuratpanich L, Vo VB. Psychological Impacts of COVID-19 During the First Nationwide Lockdown in Vietnam: Web-Based, Cross-Sectional Survey Study. *JMIR Formative Research*. 2021;5(3):e28357.
- 2018 Vo TQ, **Duong KNC**, Vu TNO, Pham TA, Vo NX. An assessment of an adapted version of the Arthritis Impact Measurement Scales Short-Form Questionnaire to determine health-related quality of life in Vietnamese patients with arthritis. *Journal of Clinical and Diagnostic Research*. 2018; 12(6): LC79 - LC84.
- 2018 Vo TQ, Tran QT, **Duong KNC**, Pham CK. Impact of chronic kidney disease on health-related quality of life: A prospective observational study using the Kdqol-36 Instrument. *Journal of Clinical and Diagnostic Research*. 2018; 12 (6), LC66 – LC71.

Conference Presentations

(Note: **Bold** indicates my authorship, Underline indicates the presenting author)

Oral/Podium Presentations

- 2025 **Duong KNC**, Toth DJA, Nguyen DT, Zhang Y, Nelson RE, Pavia AT, Jones BE, Wynette C, Jones MM, Samore MH, Chaiyakunapruk N. Impact of COVID-19 Mobile Vaccine Clinics on Health, Costs, and Equity: A Cost-Effectiveness Analysis in Utah. *IDWeek 2025, October 19–22, 2025; Atlanta, GA, USA*
- 2024 Nguyen DT, **Duong KNC**, Coates E, Nelson RE, Love J, Jones MM, Samore M, Chaiyakunapruk N, Toth D. Assessment of the Effects of an Equity-Targeted Vaccination Outreach Program on Overall and Distributional Health and Economic Outcomes. International Society for Pharmacoeconomics Outcomes Research (ISPOR) 2024, May 6–8, 2024; Atlanta, GA, USA.
- 2022 Nguyen HT, **Duong KNC**, Le HM, Mai KTT, Nguyen TLP. Cost-Minimization of Ephedrine Pre-filled Syringes Compared to Ephedrine Ampoules in Vietnam. Evolving to Excellence. *APAC Patient Safety Day 2022, September 17, 2022*.
- 2020 **Duong KNC**, Gloria MAJ, Rattanasiri S, Jittikoon J, Thakkinstian A. Association Between NAT2 Polymorphisms and Anti-Tuberculosis Drug-Induced Liver Injuries: A Systematic Review and Meta-Analysis. *The 10th National Conference of Graduate Studies on Enhancing the Quality of Education and Human Development in the 21st Century, June 25–26, 2020, Bangkok, TL*.

Poster Presentations

- 2025 **Duong KNC**, Zhang Y, Nelson RE, Pavia AT, Jones BE, Nguyen DT, Wynette C, Jones MM, Samore MH, Chaiyakunapruk N. Effectiveness of Mobile Vaccine Clinics on COVID-19 Vaccination Uptake in the United States: Real-world Outcomes Study. *IDWeek 2025, October 19–22, 2025; Atlanta, GA, USA*.
- 2024 **Duong KNC**, Nguyen DT, Kategaew W, Liang X, Khaing W, Visnovsky LD, Veettil SK, McFarland MM, Nelson RE, Jones B, Pavia A, Coates E, Khader K, Love J, Yon GV, Zhang Y, Willson T, Dorsan E, Toth D, Jones MM, Samore M, Chaiyakunapruk N. Incorporating Social Determinants of Health Into Transmission Modeling of COVID-19

- Vaccine in the US: A Scoping Review. *International Society for Pharmacoeconomics Outcomes Research (ISPOR) 2024, May 6-8, 2024; Atlanta, GA, USA.*
- 2024 **Schmutz H, Duong KNC**, Ben-Umeh K, Duru E, Trom C, Rose N, Chaiyakunapruk N, Willis C. Comparative Effectiveness of Rapid Vs. Non-Rapid Start of Anti-Retroviral Therapy in Patients With Human Immunodeficiency Virus Infection on Clinical Outcomes: A Systematic Literature Review and Meta-Analysis. *International Society for Pharmacoeconomics Outcomes Research (ISPOR) 2024, May 6–8, 2024; Atlanta, GA, USA.*
- 2023 **Duong KNC**, Schmutz HW, Ben-Umeh K, Duru E, Rose N, Trom C, Willis C, Chaiyakunapruk N. Summarizing the economic value of rapid start antiretroviral therapy in patients with HIV infections: A systematic literature review. *Academy of Managed Care Pharmacy (AMCP) Nexus 2023, October 16-19, 2023; Orlando, FL, USA.*
- 2023 **Duong KNC**, Nguyen DV, Chaiyakunapruk N, Nelson RE, Malone DC. Pharmacogenetic HLA-B*58:01 Testing to Prevent Allopurinol-Induced SJS/TEN in Vietnamese Population: A Cost-Effectiveness Analysis. *International Society for Pharmacoeconomics Outcomes Research (ISPOR) US 2023, May 7–10, 2023; Boston, MA, USA.*
- 2023 Le LM, **Duong KNC**, Veettil SK, Saidoung P, Wannaadisai W, Nelson RE, Friedrichs M, Jones BE, Visnovsky L, Pavia AT, Jones MM, Samore MH, Chaiyakunapruk N. Disparities in COVID-19 Related Outcomes in the United States by Race and Ethnicity: An Umbrella Review of Meta-Analyses. *International Society for Pharmacoeconomics Outcomes Research (ISPOR) US 2023, May 7–10, 2023; Boston, MA, USA.*
- 2023 **Duong KNC**, Nguyen DV, Chaiyakunapruk N, Nelson RE, Malone DC. Pharmacogenetic HLA-B*58:01 Testing to Prevent Allopurinol-Induced SJS/TEN in Vietnamese Population: A Cost-Effectiveness Analysis. *Western Pharmacoeconomics Conference (WPEC) 2023, March 9–11, 2023; Los Angeles, CA, USA.*
- 2022 Shimamoto K, **Duong KNC**. Mechanisms and Social Disparities in the COVID-19 Vaccination, Intention, and Perception in Japan: A Mediation Analysis using Structural Equation Modeling. *American Public Health Association (APHA) Annual Meeting 2022, November 6–9, 2022; Boston, MA, USA.*
- 2022 **Duong KNC**, Tan CJ, Rattanasiri S, Thakkinstian A, Anothaisintawee T, Chaiyakunapruk N. Comparison of Diagnostic Accuracy for Diabetic Diagnosis: A Systematic Review and Network Meta-Analysis. *International Society for Pharmacoeconomics Outcomes Research (ISPOR) US 2022; Washington, DC, USA.*
- 2017 **Duong KNC**, Nguyen HTM. Development and Validation of Questionnaire on Foot Care Knowledge and Practice in Diabetic Outpatients at a Vietnamese Hospital. *17th Asian Conference on Clinical Pharmacy, 2017; July 28-30, Yogyakarta, Indonesia.*
- 2017 **Duong KNC**, Nguyen HTM. Investigation on the Knowledge and Practice of Foot Care Among Diabetic Outpatients Attending the University Medical Center Ho Chi Minh City. *17th Asian Conference on Clinical Pharmacy, 2017; July 28-30, Yogyakarta, Indonesia.*
- 2015 **Duong KNC**, Nguyen HTM. Development and Validation of Questionnaire on Foot Care Knowledge and Practice in Diabetic Outpatients at a Vietnamese Hospital. The 1st

International Conference on Pharmacy Education and Research Network of ASEAN (ASEAN PHARMNET I), 2015; December 2-4, Bangkok, Thailand.

Journal Reviewer

Ad-hoc Reviewer for Peer-Reviewed Journals:

- **2024 – Present:** Scientific Reports, Vaccine, Archives of Public Health, BMC Infectious Disease, BMC Systematic Reviews, Journal of Preventive Medicine and Public Health, Asian Pacific Journal of Cancer Prevention, The Lancet Regional Health - Western Pacific (Co-reviewer).
- **2021 – 2023:** BMC Public Health, BMC Global and Public Health (Co-reviewer), PLOS ONE, Pharmacia, Journal of Medical Internet Research (JMIR), BMC Cancer (Co-reviewer).

Professional Associations

- Member, The Professional Society for Health Economics and Outcomes Research (ISPOR):
2021 – present
- Member, Academy of Managed Care Pharmacy (AMCP) 2023 - 2024
- Member, American Public Health Association (APHA) 2022 - 2023

Awards

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| 2025 | Immunology, Inflammation, and Infectious Disease (3i) Trainee Conference Travel Award 2025, University of Utah, Utah, US. |
| 2025 | Graduate Student Professional Development Supplement Award 2025, University of Utah, Utah, US. |
| 2025 | Graduate Student Travel Assistance Award (GSTAA) 2025, University of Utah, Utah, US |
| 2024 | Kuramoto Graduate Research Fellowship 2024-2025, College of Pharmacy, University of Utah, Utah, US. |
| 2023 | Silver Ribbon Abstract. Academy of Managed Care Pharmacy (AMCP) Nexus Conference 2023, Orlando, Florida, US. |
| 2023 | Summer Scholarship. Statistics and Modeling in Infectious Diseases (SISMID) scholarship in 2023 Summer Institute, Washington University, Seattle, US. |
| 2023 | Best Poster Presentation. Western PharmacoEconomics Conference (WPEC) Conference 2023. Mar 9-11, 2023. Los Angeles, California, US. |
| 2017 | Second Prize for Research Posters Award, Online Conference on Clinical Pharmacy (OCCP), The Bridge for Clinical Pharmacy in Vietnam (BCP_Viet) foundation, VN. |
| 2014 | Outstanding Student Award, Daewoong Pharmaceutical Company, VN. |
| 2012-2014 | Excellent Student Awards, University of Medicine and Pharmacy University at Ho Chi Minh City, VN. |