

TRANG QUYNH NGUYEN

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EDUCATION AND TRAINING

JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH

- 2017-2021 PhD in Biostatistics (advised by Elizabeth Ogburn and Constantine Frangakis)
2014-2016 Postdoc in causal inference for drug use research (mentored by Elizabeth Stuart and Renee Johnson)
2009-2014 PhD in Social and Behavioral Sciences (advised by Amy Knowlton)
2013-2014 MHS in Biostatistics (advised by Karen Bandeen-Roche)

HARVARD SCHOOL OF PUBLIC HEALTH

- 1999-2001 SM in Population and International Health

HANOI FOREIGN TRADE UNIVERSITY

- 1990-1995 BA in Economics (concentration: foreign trade English)

PROFESSIONAL POSITIONS

- 2016-present *Assistant Scientist*
Department of Mental Health, Johns Hopkins Bloomberg School of Public Health (JHSPH)
- 2014-2016 *Postdoctoral Research Fellow*
The Drug Dependence Epidemiology Training Program, Department of Mental Health, JHSPH
- 2010-2014 *Graduate Research Assistant and Teaching Assistant*
Department of Health, Behavior and Society, and Department of Biostatistics, JHSPH
- 2009-2014 *Senior Researcher*
Institute for Studies of Society, Economy and Environment (iSEE), Ha Noi, Viet Nam
- 2008 *Independent Public Health Technical Consultant*
with public health and civil rights organizations, Viet Nam
- 2005-2008 *Senior Technical Advisor/Program Coordinator (2007-2008)*
Technical Advisor/Program Coordinator (2006-2007)
Program Coordinator (2005-2006)
Path Vietnam, Ha Noi, Viet Nam
- 2004-2005 *Program Officer*
The Policy Project, The Futures Group, Ha Noi, Viet Nam
- 2001-2003 *Independent Research and Public Health Technical Consultant*
with public health and social services organizations, Viet Nam
- 1998-1999 *Project Development Officer (1999)*
Program Assistant (1998)
Oxfam Great Britain, Ha Noi, Viet Nam
- 1996-1998 *Project Officer and Principal Author*
Gender Education Group, Ha Noi, Viet Nam
- 1995-1996 *Assistant to Resident Advisor*
Pathfinder International, Ha Noi, Viet Nam

HONORS AND AWARDS

2018	Gertrude Cox Scholarship, Caucus for Women in Statistics, American Statistical Association (ASA)
2015	Phi Beta Kappa
2015	Honorable Mention Award, JSM Student Paper Competition, Mental Health Statistics Section, ASA
2012-2013	Distinguished Doctoral Research Award and Dissertation Research Award, Department of Health, Behavior and Society, Johns Hopkins Bloomberg School of Public Health (JHSPH)
2009-2014	Sommer Scholarship, JHSPH
1999-2001	Buffett Foundation/Population Council Public Health Fellowship

PROFESSIONAL ACTIVITIES

Grant review panels	amfAR HIV Scholars Program, Center for LGBT Health Research, Graduate School of Public Health, Pittsburg University (2013) Lesbian Health Fund, Gay and Lesbian Medical Association (2022)
Conference abstracts review	Society for Prevention Research Annual Meeting (San Francisco, CA, 2016) NIMH Conference on Mental Health Services Research (Washington, DC, 2022)
Conference session chair	Eastern North American Regional Meeting of the International Biometric Society (Washington, DC, 2017) Joint Statistical Meetings of the ASA (Washington, DC, 2022)
Conference session organizer	Atlantic Causal Inference Conference (Chapel Hill, NC, 2018) Joint Statistical Meetings of the ASA (Denver, CO, 2019)

EDITORIAL ACTIVITIES

Editorial board member	Prevention Science (2021-2024)
Special issue statistical editor	Prevention Science (2017)
Peer reviewer, statistics	American Journal of Epidemiology, Annals of Applied Statistics, Biostatistics, Biometrical Journal, International Journal of Biostatistics, Journal of Causal Inference, Journal of Educational and Behavioral Statistics, Journal of Statistical Software, Journal of the Royal Statistical Society-Series A and B, Multivariate Behavioral Research, Psychological Methods, Psychometrika, Statistical Methods in Medical Research, Statistics and Probability Letters
Peer reviewer, substantive	AIDS and Behavior, American Journal of Epidemiology, Child Development, European Societies, Global Mental Health, Health Psychology, Journal of Adolescent Health, Journal of Comparative Effectiveness Research, Journal of Consulting and Clinical Psychology, Journal of Homosexuality, Plos One, Prevention Science, SAGE Open, Trials

RESEARCH PUBLICATIONS

UNDER REVIEW AND PREPRINTS

1. **Nguyen TQ**, Stuart EA, Scharfstein DO, Ogburn EL. Sensitivity analysis for principal ignorability violation in estimating complier and noncomplier average causal effects. arXiv:2303.05032.

2. **Nguyen TQ**, Stuart EA. Multiple imputation for propensity score analysis with covariates missing at random: some clarity on *within* and *across* methods. arXiv:2301.07066.
3. **Nguyen TQ**, Roberts Lavigne L, Lupton-Smith C, Kirk GD, Mehta SH, Linton SL. Estimation of place-based vulnerability scores for HIV viral non-suppression: an application leveraging data from a cohort of people with histories of using drugs.
4. Schuler MS, Coffman DL, Stuart EA, **Nguyen TQ**, Vegetabile B, McCaffrey DF. Practical challenges in mediation analysis: A guide for applied researchers. (revision submitted)
5. Branter CL, **Nguyen TQ**, Teng T, Zhao, C, Hong H, Stuart EA. Comparing Machine Learning Methods for Estimating Heterogeneous Treatment Effects by Combining Data from Multiple Randomized Controlled Trials.

PEER-REVIEWED ARTICLES

40. Brantner CL, Chang T-H, **Nguyen TQ**, Hong H, Di Stefano L, Stuart EA. (Accepted). Strategies for integrating trial and non-experimental data for examining effect heterogeneity. *Statistical Science*. arXiv:2302.13428.
39. Chang T-H, **Nguyen TQ**, Jackson JW. (Accepted). The importance of ethical value judgements and estimator-estimand alignment in measuring disparity and identifying targets to reduce disparity. *American Journal of Epidemiology*.
38. Poteat TC, Wirtz AL, Adams D, Linton SL, Gutierrez C, Brown C, Miller M, Rich AJ, Williams J, **Nguyen TQ**, Reisner SL. (2023). Interruptions in HIV Prevention and Treatment Due to the COVID-19 Pandemic: A Cross-sectional Study of Transgender and Gender Nonbinary Adults in the U.S. *JAIDS*. doi:10.1097/QAI.0000000000003185.
37. **Nguyen TQ**, Ogburn EL, Schmid I, Sarker EB, Greifer N, Koning IM, Stuart EA. (2023). Causal mediation analysis: From simple to more robust strategies for estimation of marginal natural (in)direct effects. *Statistics Surveys*. 17:1-41. doi:10.1214/22-SS140. arXiv:2102.06048.
36. **Nguyen TQ**, Schmid I, Ogburn EL, Stuart EA. (2022). Clarifying causal mediation analysis: Effect identification via three assumptions and five potential outcomes. *Journal of Causal Inference*. 10:246-279. doi:10.1515/jci-2021-0049. arXiv:2011.09537.
35. Chang T-H, **Nguyen TQ**, Lee Y, Jackson JW, Stuart EA. (2022). Flexible propensity score estimation strategies for clustered data in observational studies. *Statistics in Medicine*. doi:10.1002/sim.9551.
34. Lee Y, **Nguyen TQ**, Stuart EA. (2021). Partially pooled propensity score models for average treatment effect estimation with multilevel data. *Journal of the Royal Statistical Society: Section A*. doi:10.1111/rssa.12741. arXiv:1910.05600.
33. Stuart EA, Schmid I, **Nguyen TQ**, Sarker EB, Pittman A, Benke K, Rudolph K, Badillo-Goicoechea E, Leoutsakos J-M. (2021). Assumptions not often assessed or satisfied in published mediation analyses in psychology and psychiatry. *Epidemiologic Reviews*. 43(1):48-52.
32. Langston M, Sfanos K, Khan S, **Nguyen TQ**, De Marzo AM, Platz EA, Sutcliffe S. (2021). Why do epidemiologic studies find an inverse association between intraprostatic inflammation and prostate cancer: a possible role for colliding bias? *Cancer Epidemiology, Biomarkers & Prevention*. doi:10.1158/1055-9965.EPI-20-1009.
31. **Nguyen TQ**, Schmid I, Stuart EA. (2021). Clarifying causal mediation analysis for the applied researcher: Defining effects based on what we want to learn. *Psychological Methods*. 26(2):255-271. doi:10.1037/met0000299. arXiv:1904.08515.
30. Eaton WW, **Nguyen TQ**, Pedersen MG, Mortensen PB, Rose NR. (2020). Comorbidity of autoimmune diseases: a visual presentation. *Autoimmunity Reviews*. 19(10):102638. doi:10.1016/j.autrev.2020.102638.
29. Dong N, Stuart EA, Lenis D, **Nguyen TQ**. (2020). Using propensity score analysis of survey data to estimate population average treatment effects: A case study comparing different methods. *Evaluation Review*. doi:10.1177/0193841X20938497.
28. Schmid I, Rudolph KE, **Nguyen TQ**, Hong H, Seamans MJ, Ackerman B, Stuart EA. (2020). Comparing the performance of statistical methods that generalize effect estimates from randomized controlled trials to much larger target populations. *Communications in Statistics – Simulation and Computation*. doi:10.1080/03610918.2020.1741621.

27. Knowlton AR, Catanzarite Z, **Nguyen TQ**, Isenberg S, Tseng TY, Mitchell MM. (2020). Quality of life among caregivers of a vulnerable population living with HIV/AIDS Caregiving and relationship factors. *AIDS And Behavior*. doi:10.1007/s10461-020-02975-2.
26. **Nguyen TQ**, Stuart EA. (2020). Propensity score analysis with latent covariates: Measurement error bias correction using the covariate’s posterior mean, aka the *inclusive* factor score. *Journal of Educational and Behavioral Statistics*. 45(5):598-636. doi: 10.3102/1076998620911920. arXiv:1907.12709.
25. Owczarzak J, **Nguyen TQ**, Mazhnaya A, Phillips SD, Filippova O, Alpatova P, Zub T, Aleksanyan R. (2019). Outcome evaluation of a “common factors” approach to develop culturally tailored HIV prevention interventions for people who inject drugs. *Drug and Alcohol Dependence*. 199:18-26. doi:10.1016/j.drugalcdep.2019.02.015.
24. **Nguyen TQ**, Dafoe A, Ogburn EL. (2019). The magnitude and direction of collider bias for binary variables. *Epidemiologic Methods*. 8(1). doi:10.1515/em-2017-0013. arXiv:1609.00606v3.
23. Lenis D, **Nguyen TQ**, Dong NB, Stuart EA. (2019). It’s all about balance: Propensity score matching in the context of complex survey data. *Biostatistics*. 20(1):147-163. doi:10.1093/biostatistics/kxx063.
22. **Nguyen TQ**, Ackerman A, Schmid I, Cole SR, Stuart EA. (2018). Sensitivity analyses for effect modifiers not observed in the target population when generalizing treatment effects from a randomized controlled trial: Assumptions, models, effect scales, data scenarios, and implementation details. *PLoS ONE*. 13(12):e0208795. PMID: PMC6289424. doi:10.1371/journal.pone.0208795. arXiv:2011.13058.
21. **Nguyen TQ**, Ebnesajjad C, Stuart EA, Kennedy RD, Johnson RM. (2018). Does marijuana use at ages 16-18 predict initiation of daily cigarette smoking in late adolescence and early adulthood? A propensity score analysis of Add Health data. *Prevention Science*. doi:10.1007/s11121-018-0874-9.
20. Carrasco MA, **Nguyen TQ**, Barrington C, Perez M, Donastorg Y, Kerrigan D. (2018). HIV Stigma Mediates the Association Between Social Cohesion and Consistent Condom Use Among Female Sex Workers Living with HIV in the Dominican Republic. *Archives of Sexual Behavior*. 47:1529-1539.
19. Carrasco MA, **Nguyen TQ**, Kaufman MR. (2018). Low uptake of voluntary medical male circumcision among high risk men in Malawi. *AIDS and Behavior*. 22(2):447-453. doi:10.1007/s10461-016-1633-1.
18. **Nguyen TQ**, Ebnesajjad C, Cole SR, Stuart EA. (2017). Sensitivity analysis for an unobserved moderator in RCT-to-target-population generalization of treatment effects. *Annals of Applied Statistics*. 11(1):225-247. doi:10.1214/16-AOAS1001.
- 18a. **Nguyen TQ**, Stuart EA. (2020). Correction: Sensitivity analysis for an unobserved moderator in RCT-to-target-population generalization of treatment effects. *Annals of Applied Statistics*. 14(1):518-520. doi:10.1214/19-AOAS1320.
17. Mitchell MM, **Nguyen TQ**, Isenberg SR, Maragh-Bass AC, Keruly J, Knowlton AR. (2017). Psychosocial and service use correlates of health-related quality of life among a vulnerable population living with HIV/AIDS. *AIDS and Behavior*. 21(6):1580-1587 doi:10.1007/s10461-016-1589-1. PMID: 27787675.
16. **Nguyen TQ**, Webb-Vargas Y, Koning IH, Stuart EA. (2016). Causal mediation analysis with a binary outcome and multiple continuous or ordinal mediators: Simulations and application to an alcohol intervention. *Structural Equation Modeling: A Multidisciplinary Journal*. 23(3):368-383. doi:10.1080/10705511.2015.1062730. PMID: PMC4855301.
15. **Nguyen TQ**, Bandeen-Roche K, German D, Nguyen NTT, Bass JK, Knowlton AR. (2016). Negative treatment by family as a predictor of mental well-being, suicidality, and tobacco/alcohol use in Vietnamese sexual minority women. *LGBT Health*. 3(5):357-365. doi:10.1089/lgbt.2015.0017.
14. **Nguyen TQ**, Poteat T, Bandeen-Roche K, German D, Nguyen YH, Vu LKC, Nguyen NTT, Knowlton AR. (2016). The Internalized Homophobia Scale for Vietnamese Sexual Minority Women (IHVN-W): Conceptualization, factor structure, reliability, and associations with hypothesized correlates. *Archives of Sexual Behavior*. 45(6):1329-1346. doi:10.1007/s10508-016-0694-6.
13. **Nguyen TQ**, Bandeen-Roche K, Bass JK, German D, Nguyen NTT, Knowlton AR. (2016). A tool for sexual minority mental health research: The Patient Health Questionnaire (PHQ-9) as a depressive symptom severity measure for sexual minority women in Viet Nam. *Journal of Gay & Lesbian Mental Health*. 20(1):173-191. doi:10.1080/19359705.2015.1080204.

12. Mitchell MM, Maragh-Bass AC, **Nguyen TQ**, Isenberg S, Knowlton AR. (2016). The role of chronic pain and current substance use in predicting negative social support among disadvantaged persons living with HIV/AIDS. *AIDS Care*. 28(10):1280-1286. doi:10.1080/09540121.2016.1168916.
11. Gregory EF, Gross SM, **Nguyen TQ**, Butz AM, Johnson SB. (2016). WIC participation and breastfeeding at three months postpartum. *Maternal and Child Health Journal*. 20(8):1735-1744. doi:10.1007/s10995-016-1977-1.
10. Mitchell MM, **Nguyen TQ**, Maragh-Bass AC, Isenberg SR, Beach MC, Knowlton AR. (2016). Patient-provider engagement and chronic pain in drug-using, primarily African-American persons living with HIV/AIDS. *AIDS and Behavior*. doi:10.1007/s10461-016-1592-6. PMID: 27787673.
9. **Nguyen TQ**, Bandeen-Roche K, Masyn KE, German D, Nguyen YH, Vu LKC, Knowlton AR. (2015). Negative family treatment of sexual minority women and transmen in Viet Nam: Latent classes and their predictors. *Journal of GLBT Family Studies*. 11(3):205-228. doi:10.1080/1550428X.2014.964443.
8. Knowlton AR, **Nguyen TQ**, Robinson AC, Harrell PT, Mitchell MM. (2015). Pain symptoms associated with opioid use among vulnerable persons with HIV: An exploratory study with implications for palliative care and opioid abuse prevention. *Journal of Palliative Care*. 31(4):228-233.
7. German D, **Nguyen TQ**, Ogbue CP, Flynn C. (2015). Condomless anal intercourse among males and females at high risk for heterosexual HIV infection. *Sexually Transmitted Diseases*. 42(6):317-323. doi:10.1097/OLQ.0000000000000275. PMID: 25970308. PMCID: PMC4677052.
6. Mitchell MM, Robinson AC, **Nguyen TQ**, Knowlton AR. (2015). Informal caregiver characteristics associated with viral load suppression among current or former injection drug users living with HIV/AIDS. *AIDS and Behavior*. 19(11):2117-2122. doi:10.1007/s10461-015-1090-2. PMID: 25969180. PMCID: PMC4600410.
5. Mitchell MM, Robinson AC, **Nguyen TQ**, Knowlton AR. (2015). Latent growth curve analyses of emotional support for informal caregivers of vulnerable persons with HIV/AIDS. *AIDS Care*. 27(9):1108-1111. doi:10.1080/09540121.2015.1032202. PMID: 25884910. PMCID: PMC4596736.
4. Mitchell MM, Robinson AC, **Nguyen TQ**, Smith TJ, Knowlton AR. (2015). Preferences for professional versus informal care at end of life amongst African American drug users with HIV/AIDS. *AIDS Care*. 27(2):218-222. PMID: 25196174. PMCID: PMC4286467.
3. Knowlton AR, Mitchell MM, Robinson AC, **Nguyen TQ**, Isenberg S, Denison J. (2015). Informal HIV caregiver proxy reports of care recipients' treatment adherence: Relationship factors associated with concordance with recipients' viral suppression. *AIDS and Behavior*. 19(11):2123-2129. doi:10.1007/s10461-015-1092-0. PMID: 26036463. PMCID: PMC4600414.
2. **Nguyen TQ**, Weir BW, Pinkerton SR, Des Jarlais DC, Holtgrave DR. (2014). Syringe exchange in the United States: A national level economic evaluation of hypothetical increases in investment. *AIDS and Behavior*. 18(11):2144-2155. doi:10.1007/s10461-014-0789-9. PMID: 24824043. PMCID: PMC4211599.
1. **Nguyen TQ**, Blum RW. (2014). Homosexuality tolerance among male and female Vietnamese youth: An examination of traditional sexual values, self-esteem and demographic/contextual characteristics. *Journal of Adolescent Health*. 55(6):823-829. doi:10.1016/j.jadohealth.2014.07.011. PMID: 25240448.

BOOK CHAPTERS

1. Coffman DL, Schuler MS, **Nguyen TQ**, McCaffrey DF. Weighting for causal mediation. (Forthcoming). In *Handbook of Weighting and Matching Adjustments for Causal Inference*. Edited by by José R. Zubizarreta, Elizabeth A. Stuart, Dylan S. Small, Paul R. Rosenbaum. Chapman & Hall/CRC Handbooks of Modern Statistical Methods.

RESEARCH REPORTS (NOT PEER-REVIEWED)

1. Institute for Studies of Society, Economy and Environment, ICS Center. (2013). Kết quả ban đầu từ khảo sát nữ yêu nữ [Preliminary Findings from the Survey of Women who Love Women]. Ha Noi, Viet Nam: Institute for Studies of Society, Economy and Environment.

2. **Nguyen TQ**, Nguyen NTT, Le TNT, Le BQ. (2010). Sống trong một xã hội dị tính: Chuyện của 40 người nữ yêu nữ: Quan hệ với cha mẹ [Living in a Heterosexual Society: Stories from 40 Women who Love Women: Relationships with Parents]. Ha Noi, Viet Nam: Institute for Studies of Society, Economy and Environment.

RESEARCH PRESENTATIONS

INVITED TALKS

- 2022 Causal mediation analysis. Epidemiology of Aging T32, University of Maryland. June 23, webinar.
- 2022 Causal mediation analysis. Social and behavioral sciences Branch, NICHD. June 8, webinar.
- 2019 Causal mediation analysis: Effect definitions (what is it we are trying to learn?) Training Interdisciplinary Educational Scientists Program, Penn State University. April 17, webinar.
- 2018 Causal mediation analysis. Psychiatry Department, Johns Hopkins Medical School. April 3, Baltimore MD.
- 2015 Sensivity analysis for unobserved effect moderators in generalization. The Legacy Foundation. August 13, Washington DC.

SCIENTIFIC CONFERENCES

- 2022 Two flexible overlap weighting families: Propensity score weighting and weighting to combine groups. Joint Statistical Meetings of the American Statistical Association. Washington DC.
- 2022 Two flexible overlap weighting families: Propensity score weighting and weighting to combine groups. American Causal Inference Conference, Berkeley CA. (Poster)
- 2021 Causal mediation analysis: From simple to more robust estimation strategies. CMStatistics, online.
- 2021 Health disparities and fairness. Joint Statistical Meetings of the American Statistical Association, online. (Discussion)
- 2020 Causal mediation estimands from an applied perspective: What do we want to learn? Joint Statistical Meetings of the American Statistical Association, online.
- 2020 Clarifying causal mediation analysis for the applied researcher: Defining effects based on what we want to learn. Society for Research on Educational Effectiveness Spring Conference, Washington DC.
- 2019 Covariate measurement error in propensity score analysis: Leveraging the covariate's posterior mean. Joint Statistical Meetings of the American Statistical Association, Denver CO.
- 2019 Trade-offs and tensions in mediation analyses of experimental data. Society for Research on Education Effectiveness Spring Conference, Washington DC. (Discussion)
- 2018 Propensity score methods with complex survey data: when treatment effects are heterogeneous across strata and clusters. Society for Research on Educational Effectiveness Spring Conference, Washington DC.
- 2017 Sensitivity analyses for partially for fully unobserved effect modifiers when calibrating the effect from a randomized trial to a target population. Atlantic Causal Inference Conference, Chapel Hill NC.
- 2017 Measurement Error in Causal Inference. Eastern North American Region Conference of the International Biometrics Society, Washington DC. (Discussion)
- 2016 A simple fix for bias due to a latent/mismeasured covariate in propensity score weighting analysis: Factor scores from models inclusive of treatment and other covariates. Joint Statistical Meetings of the American Statistical Association, Chicago IL.
- 2016 Propensity score analysis with a latent or mismeasured covariate: Using factor scores from inclusive factor or structural equation models to reduce bias. Society for Prevention Research Annual Meeting, San Francisco CA.
- 2016 Bias due to a mismeasured/latent covariate in propensity score analysis: A simple fix using "inclusive" factor scores. Atlantic Causal Inference Conference, New York City NY. (Lightning talk)

- 2016 Collider bias in binary variable structures. Atlantic Causal Inference Conference, New York City NY. (Lightning talk)
- 2016 Reduction of bias due to a latent/mismeasured variable in propensity score analysis: Factor scores from models including treatment and other covariates. Modern Modeling Methods, Storrs CT.
- 2016 Sensitivity analysis for unobserved effect modifiers in RCT-to-target-population generalization of treatment effect. Eastern North American Region Conference of the International Biometrics Society, Austin TX.
- 2015 Causal mediation analysis with a binary outcome and multiple continuous or ordinal mediators: Simulations and application to an alcohol prevention study. Society for Prevention Research Annual Meeting, Washington DC.
- 2015 Sensitivity analysis for unobserved effect modifiers in RCT-to-target-population generalization of treatment effect. Atlantic Causal Inference Conference, Philadelphia PA. (Poster)
- 2014 How much of the sexual-orientation-related disparities in youth mental health can be explained by experience of victimization? A mediation analysis with causally defined effects. Society for Prevention Research Annual Meeting, Washington DC.
- 2014 Negative family treatment of sexual minority women and transmen in Viet Nam: Latent classes and their predictors. 142th APHA Annual Meeting, New Orleans LA. (Poster)
- 2013 Health outcomes of non-heterosexual compared to heterosexual adolescents and young adults from a national survey in Viet Nam: Analysis using propensity score matching. 141st APHA Annual Meeting, Boston MA. (Poster)
- 2012 It would be cost-saving to increase investment in syringe exchange in the United States. International AIDS Conference, Washington DC.

PRACTICE ACTIVITIES

SOFTWARE DEVELOPMENT

1. **mediationClarity**. An R-package to implement a range of estimators of marginal natural (in)direct effects with different robustness properties. <https://github.com/trangnguyen74/mediationClarity>.
2. **placeVscore**. An R-package for the estimation of place-based vulnerability scores to a health outcome based on place characteristics. <https://github.com/trangnguyen74/placeVscore>.
3. **PIsens**. An R-package for sensitivity analyses for violation of the principal ignorability (PI) assumption in the estimation of complier and noncomplier average causal effects. <https://github.com/trangnguyen74/PIsens>.
4. **flexoweight**. An R-package for flexible overlap weighting schemes. Under active development.

SELECT PROJECTS IN PUBLIC HEALTH AND SOCIAL JUSTICE

With *Institute for Studies of Society, Economy and Environment*, Ha Noi, Viet Nam 2009-2014
 Conducted training to sensitize journalists on sexual/gender diversity and lesbian, gay, bisexual and transgender (LGBT) rights. Trained a newly formed group of moderators of LGBT websites to prepare them for engagement in public education and policy advocacy on LGBT rights. Conducted and disseminated research on sexual stigma and mental health of sexual minority women to inform advocacy as well as support services.

With *Pact Vietnam*, Ha Noi, Viet Nam 2005-2008
 In the first year, worked with the country director to open Pact's Viet Nam office in response to a request from USAID for grant management service, as the US President's Emergency Program for HIV/AIDS Response (PEPFAR) started in Viet Nam. Provided grant management and monitoring and evaluation (M&E) training to staff of non-profit partner organizations that received PEPFAR funding through Pact. Provided technical assistance to partners in their design and implementation of HIV prevention, care and treatment projects.

In the second and third years, led the care and treatment and M&E components of the program. Recruited and trained staff to provide technical support to partners. Coordinated with PEPFAR's broader care and treatment working group. Advised partners on the design and management of care and support projects and promoted service linkages across organizations. Sensitized care and support partners to essential service packages recommended for people living with HIV and orphans and vulnerable children through training workshops and coaching sessions. Conducted technical audits of HIV treatment sites to ensure quality of care and secure support needed by sites and providers. Developed and rolled out a monitoring system that helped partners fulfill PEPFAR's reporting requirements.

With *The Policy Project, The Futures Group*, Ha Noi, Viet Nam

2004-2005

Advocated for access to antiretroviral therapy, focusing on issues related to patent protection, pricing and sources of antiretrovirals for first-line regimens. Managed the organization's provision of technical support to the drafting team of Viet Nam's HIV law. Facilitated a process in which inputs from public health HIV experts, human rights lawyers, and groups representing people living with HIV – especially inputs on access to service and recognition/protection of rights – were considered and incorporated into the law. Served as a mentor and facilitator for a group of people living with HIV in their early stages of building a community with a voice. Provided training and training-of-trainers to people living with HIV on HIV treatment literacy. Developed treatment literacy materials which were adopted broadly by people living with HIV support groups, HIV care and support programs, and HIV treatment sites.

With *World Population Foundation*, Ha Noi, Viet Nam

2001-2003

Developed and tested a sexual health curriculum for youth with criminal offense in reform schools, and trained reform school teachers to deliver the curriculum.

PROGRAM/POLICY-ORIENTED QUALITATIVE RESEARCH

1. **Nguyen TQ.** (2004). *Community-based Infrastructure Project Management: The Lessons Learnt*. Ha Noi, Viet Nam: Oxfam Great Britain.
2. **Nguyen TQ,** Duong HB. (2003). *Needs Assessment for Flood Preparedness and Mitigation in Dong Thap Province*. Report submitted to Oxfam Great Britain.
3. Pairaudeau N, **Nguyen TQ,** Nguyen PD. (2003). *Social assessment for Disaster Mitigation Project*. Report submitted to Vietnamese Ministry of Agriculture and Rural Development.
4. **Nguyen TQ,** Nachuk S, Vo GTC. (2003). *Primary Teachers Project: Action Research in Tuy Hoa District, Phu Yen Province*. Report submitted to the World Bank.
5. Hoang TX, Bui HD, **Nguyen TQ,** Pham TV, Hoang TX. (2003). *Lao Cai Participatory Poverty Assessment*. Report submitted to Department for International Development, Great Britain.
6. **Nguyen TQ.** (2002). *Seafarers and HIV Vulnerability: A Study of Fishermen and Passenger Boat Crewmembers in Hai Phong*. Hai Phong, Viet Nam: World Vision International.
7. **Nguyen TQ.** (2001). *Hợp tác liên ngành và sự tham gia của cộng đồng trong chương trình phát triển sức khỏe do cộng đồng quản lý tại một huyện tỉnh Quảng Trị [Intersectoral Collaboration and Community Participation in the Community-Managed Health Development Program in a District in Quang Tri province]*. Report submitted to Quang Tri Province Department of Health.
8. Nguyen TPQ, Nachuk S, Houghton G, **Nguyen TQ,** Than HTT. (1999). *Tra Vinh: A Participatory Poverty Assessment*. Ha Noi, Viet Nam: Oxfam Great Britain.
9. **Nguyen TQ.** (1997). *Community implementation of the Oxfam-supported micro-credit project in Da Bac district, Hoa Binh province*. Report submitted to Oxfam Belgium.

POPULAR SEXUAL HEALTH BOOK AND BOOKLET

Nguyen TQ, Efroymsom D, Nguyen LK. (First edition 1998). (Second edition 2001, 2003, 2005). *Trò chuyện về giới tính, tình yêu, sức khỏe [Let's Talk About Sexuality, Love and Health]*. Ha Noi, Viet Nam: Women's Publishing

House (first edition), Youth Publishing House (second edition). (A book for young adults about sexuality, inspired by *Our Bodies, Ourselves*)

Nguyen TQ, Efrogmson D, Nguyen LK. (1998). Tuổi mới lớn? Tuổi dậy thì? Tuổi hoa? [Puberty? Growing up? Blossoming?]. Ha Noi, Viet Nam: Women's Publishing House. (A small book for adolescents about puberty)

HEALTH CURRICULA

Luu TT, Bui PN, **Nguyen TQ**. (2003). Giáo dục giới tính-tình dục và sức khỏe sinh sản [Sexuality and Reproductive Health Education]. Ha Noi, Viet Nam: World Population Foundation; Viet Nam Institute for Educational Sciences; Ministry of Public Security; KOTO Training Center. (A teachers training manual for sexual and reproductive health education for youth in juvenile detention institutions)

The Policy Project. (2005). HIV Treatment Literacy Flipchart Set. (A four-volume set of flipcharts covering basic knowledge of HIV disease, prevention and management of opportunistic infections, palliative care, and antiretroviral therapy – widely used by HIV clinics and organizations of people living with HIV in the early years of Viet Nam's HIV treatment program)

TEACHING

ORAL EXAMS (JHSPH)

Kriti M. Jain (HBS) school-wide preliminary exam (2016)

Ryoko Susukida (MH) final defense (2017, non-attending alternate)

COURSE INSTRUCTION (JHSPH)

2021-present Causal mediation analysis. Summer institute. (Trang Nguyen, Elizabeth Stuart)

2017-present Methods for Handling Missing Data in Psychosocial Research. Summer institute. (Elizabeth Stuart, Trang Nguyen)
Received Excellence in Teaching recognition 2020, 2022

2022 Seminar on statistical methods for mental health research (term 1): Prediction models (Trang Nguyen, Nick Seewald)
Received Excellence in Teaching recognition

2021 Seminar on statistical methods for mental health research (term 2): Causal mediation analysis.

2016 Seminar on statistical methods for mental health research (term 4): Causal mediation analysis. (Trang Nguyen, Elizabeth Stuart)

GUEST LECTURES (MOSTLY JHSPH)

2022-2023 Principal stratification
Course: Causal Inference in Medical and Public Health Research (Elizabeth Stuart)

2019-2023 Causal mediation analysis
Course: Causal Inference in Medical and Public Health Research (Elizabeth Stuart)

2019 Causal mediation analysis
Course: Advanced Quantitative Methods in the Social and Behavioral Sciences (Brian Weir)

2016-2017 Latent class and finite mixture modeling
Course: Advanced Quantitative Methods in the Social and Behavioral Sciences (Brian Weir)

2015, 2021 Sensitivity analysis for unobserved confounding
Course: Advanced Pharmacoepidemiology (Susan dosReis, University of Maryland)

2014 Latent class and finite mixture modeling
Course: Data Analysis and Presentation in Social and Behavioral Science Research (Heesoon Juon)

- 2013 Using the law to protect the public's health: A case study
Course: Social and Behavioral Aspects of Public Health (Michelle Kaufman)
- 2011 Growing up gay in Viet Nam
Course: Adolescent Health and Development (Robert Blum)

TEACHING ASSISTANTSHIPS (JHSPH)

- 2013 Social and Behavioral Aspects of Public Health (instructor: Michelle Kaufman)
- 2013 Longitudinal Data Analysis (instructor: Michael Griswold)
- 2012 Structural Equation Modeling (instructors: Qian-Li Xue, Jeannie-Marie Leoutsakos)
- 2012 Data Analysis Workshops I and II (instructor: John McGready)

OTHER SIGNIFICANT TEACHING (NON-ACADEMIC SETTINGS)

With *Institute for Studies of Society, Economy and Environment*, Viet Nam

- 2009 Sexual and Gender Diversity and Portrayal by the Press: Training for journalists (with Le Quang Binh, Nguyen Bich Tam)
- 2009 Sexual and Gender Diversity: Training for moderators of LGBT websites (with Le Quang Binh, Nguyen Bich Tam, Tran Khac Tung)
- 2009 Sexual and Gender Diversity: Training for World Population Foundation staff (with Le Quang Binh)

With *Pact Vietnam*, Viet Nam, and *Pact*, Washington DC

- 2007 Care and Support for HIV Orphans and Vulnerable Children: Training for Pact Vietnam's partner organizations (with Nguyen Thanh Hang, Vu Thi Thu Nga)
- 2007 Home-based and Community-based Care for People Living with HIV: Training for Pact Vietnam's partner organizations (with Vu Thi Thu Nga)
- 2006 Results Framework and Monitoring & Evaluation: Training for Pact's REACH program's global grantee organizations
- 2005 Monitoring and Evaluation: Training for Pact Vietnam and its partner organizations (with Lynn McCoy)

With other organizations, Viet Nam

- 2005 HIV Treatment Literacy: Training for leaders of HIV self-help groups (with Nguyen Thi Minh Ngoc, Ong Van Tung). *The Policy Project, The Futures Group*
- 2003 Project Development for Youth-friendly Reproductive Health Services: Training for staff and partner organizations (with Hoang Tu Anh). *Pathfinder International*
- 2001-2002 Teachers Training on Sexual and Reproductive Health I and II: Training for teachers of reform schools (with Luu Thu Thuy, Bui Phuong Nga). *World Population Foundation*

RESEARCH GRANT PARTICIPATION

ACTIVE

R03MH128634 (NIMH, PI Nguyen) 1/14/2022 - 12/31/2023
Causal mediation analysis in mental health with mediator missingness

Mediator missingness is an important challenge for causal mediation analysis. Drawing from two statistical traditions, multiple imputation and estimating equations, this project will develop intuitive methods for handling this problem.
Role: PI

R01MH126856 (NIMH, PI Stuart) 8/19/2021 - 5/31/2025

Combining data sources to identify effect moderation for personalized mental health treatment

Identifying effect moderators is crucial for personalized delivery of treatment and prevention interventions, but doing so is incredibly difficult using standard study designs. This work will synthesize, extend, and apply methods for identifying effect moderators when multiple studies are available, with a particular focus on the complexities in mental health research.

Role: Co-I

ME-2020C3-21145 (PCORI, PI Stuart) 11/1/2021 - 11/30/2025

Advanced computational approaches for integrating data to assess effect heterogeneity

This work will synthesize, extend, and apply methods for identifying effect moderators when multiple studies are available.

Role: Co-I

U19OH012297 (NIH, PIs Davis & Fallin) 9/1/2021 - 8/31/2026

Johns Hopkins P.O.E. Total Worker Health Center in Mental Health (POE Center)

To promote worker mental health and well-being through research, education, outreach and evaluation activities that integrate the psychosocial, organizational, and environmental contexts of worker health.

Role: Co-I

R01MH115487 (NIMH, PI Stuart) 3/1/2018 - 12/31/2022

Causal mediation methods for studying mechanisms in mental health

Identifying the mechanisms and pathways that underlie the effects of treatments and exposures can help lead to more effective interventions to improve mental health in the population. New statistical methods, and clear dissemination of those methods, are needed to allow researchers to make full use of studies and examine what works, and why.

Role: Co-I

R01DA053202 (NIDA, PI Susukia) 9/1/2022 - 7/31/2025

Treatment effect heterogeneity in psychosocial treatments for substance use disorders

This study will apply a novel statistical method, causal forest approach, to data from 12 randomized controlled trials of psychosocial treatments in the NIDA Clinical Trials Network to estimate expected effect of a treatment for each individual while taking into account multiple covariates simultaneously and to identify the most important covariates contributing to treatment effect heterogeneity.

Role: Co-I

R01DA05470 (NIDA, PI Mojtabai) 8/1/2022 - 6/30/2025

Short-term outcome of stimulant use disorder treatment trials

In this project, novel analytic methods will be used to examine the impact of 9 medications on drug craving as a short-term outcome in patients participating in 10 NIDA-sponsored randomized controlled trials for treatments of cocaine and methamphetamine use disorders and to assess the association of craving with other treatment outcomes.

Role: Co-I

PENDING

2021PR-01007 (NIDA, program PI Griffin, project MPIs Stuart and Nguyen)

Advancing statistical practice for personalized medicine in substance use research

This project is part of a P01 application submitted by RAND Corporation. It aims to develop methods to assess and enhance the generalizability, across populations and time, of causal prediction models for personalized medicine.

Role: Project MPI

R01DA057221-01 (NIDA, MPIs Rabinowitz, Maher and Huhn)

Evaluating the Intersection of Genetics and Sleep in Recovery from Opioid Use Disorder

In this project, we plan to examine the role of sleep disturbances in the recovery process of persons in treatment for opioid use disorder. We also plan to determine the contributions of genetic risk for sleep disturbances in influencing the course of sleep disturbances and short- and long-term opioid use disorder treatment outcomes.

Role: Co-I

COMPLETED

R01MD013498-05S1 (NIMHD, PI Poteat) 9/1/2021 - 3/31/2023

Connecting the Dots: HIV, COVID-19, and structural racism in gender minority women

This study will assess relationships between HIV and COVID-19 experiences among transgender women, and examine associations between structural racism, HIV and pandemic health inequalities among transgender women.

Role: Co-I

R21MD014627 (NIMHD, PI Linton) 9/17/2019 - 6/30/2022

Revitalization vs. relocation: impacts of community development on opioid and other drug abuse

This study will differentiate the impacts of relocating from compared to remaining in a redeveloping and gentrifying community on opioid and other drug use and related health outcomes.

Role: co-I

R03DA044868 (NIDA, PI Linton) 7/1/2018 - 6/30/2022

Longitudinal impacts of neighborhood factors on HIV care continuum outcomes among Black PWID in Baltimore, MD

This longitudinal study (1) identifies new modifiable neighborhood determinants of lapses in retention in HIV care and virologic failure among Black people who inject drugs, and (2) explores whether healthcare-related attributes buffer the adverse impact of neighborhood determinants, including those less malleable to change, on retention in HIV care and viral suppression among Black people who inject drugs.

Role: Co-I

R34MH118178 (NIMH, PI Tobin) 2/5/2019 - 11/30/2022

A pilot peer mentor intervention that trains Black MSM to use and promote uptake of HIV/STI self-testing to peers and sex partner

This study focuses on training Black MSM to promote web-based self-testing for HIV and STI among people in their social networks.

Role: Co-I

R305D150001 (IES, PI Stuart) 7/1/2015 - 6/30/2019

Estimating population effects: Incorporating propensity scores with complex survey data

This proposed work will address both of these goals by helping researchers draw better causal inferences that relate to the target populations of large-scale education surveys.

R305D150003 (IES, PI Stuart) 7/1/2015 - 6/30/2019

Statistical methods for using rigorous evaluation results to improve local education policy decisions

Using data from four evaluations that allow us to estimate the impact of an intervention in a large number of sites, we will simulate the situation described above by drawing samples of sites, estimating the average impact in those sites, and then computing the difference between the sample average and the site specific impacts for sites outside the sample.

R01MH099010 (NIMH, PI Stuart) 7/1/2013 - 3/31/2019

Using propensity scores for causal inference with covariate measurement error

Many important questions regarding the effects of policies, treatments, or interventions in public health can only be answered using non-experimental methods due to ethical or feasibility concerns with randomized controlled trials. New statistical methods are needed to allow researchers to take full advantage of existing data to estimate treatment effects in non-experimental studies.

R01DA033644 (NIDA, PI Owczarzak) 6/15/2012 - 5/31/2016

A novel, bottom-up, approach to promote evidence-based HIV prevention for injection drug users

This project helps non-governmental organizations in Ukraine to conduct evidence-based HIV prevention and evaluates these efforts.

Role: co-I