

SARA N. LEVINTOW

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EDUCATION

PhD	The University of North Carolina at Chapel Hill, Epidemiology Dissertation: The role of depression in HIV transmission among people who inject drugs in Vietnam	2020
MSPH	The University of North Carolina at Chapel Hill, Epidemiology Thesis: A risk score for depressive symptoms among HIV-positive men who inject drugs in Vietnam	2016
BS	Davidson College, Psychology	2011

PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Epidemiology The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA	2021-present
Research Associate, Department of Epidemiology The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA	2020-2021
Epidemiologist NoviSci Inc., Durham, North Carolina, USA	2020-2021
Research Fellow NoviSci Inc., Durham, North Carolina, USA	2017-2020
Teaching Assistant, Department of Epidemiology The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA	2017-2019
Graduate Research Assistant, Institute for Global Health and Infectious Diseases The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA	2014-2020
Research Analyst, Public Health Research NORC at the University of Chicago, Bethesda, Maryland, USA	2013-2014
Research Assistant, Public Health Research NORC at the University of Chicago, Bethesda, Maryland, USA	2011-2012

HONORS

Delta Omega Honorary Society in Public Health, UNC Gillings School of Global Public Health	2020
Pre-Doctoral Fellowship, ViiV Healthcare	2018-2019

Travel Grant, UNC Graduate and Professional Student Federation	2017
Graduate Poster Session Award Winner, American Public Health Association	2016
Annual Fund Scholarship, UNC Gillings School of Global Public Health	2014
Employee Recognition Award, NORC at the University of Chicago	2012, 2013
<i>Cum Laude</i> , Davidson College	2011
Undergraduate Research Travel Grant, Council on Undergraduate Research	2011
John D. Kelton Psychology Award, Davidson College	2011
Presidential Scholarship, Davidson College	2007-2011

BIBLIOGRAPHY

Peer-reviewed publications

1. Levintow SN, Pence BW, Powers KA, Breskin A, Sripaipan T, Ha TV, Chu VA, Quan VM, Latkin CA, Go VF. Depression, antiretroviral therapy initiation, and HIV viral suppression among people who inject drugs in Vietnam. *Journal of Affective Disorders* 2021; 281: 208-215.
2. Levintow SN, Pence BW, Powers KA, Sripaipan T, Ha TV, Chu VA, Quan VM, Latkin CA, Go VF. Estimating the effect of depression on HIV transmission risk behaviors among people who inject drugs: A causal approach. *AIDS and Behavior* 2021; 25(2): 438-446.
3. Levintow SN, Reading SR, Saul BC, Yu Y, Reams DR, McGrath LJ, Philip K, Dluzniewski PJ, Brookhart MA. Lipid testing trends in the U.S. before and after the release of the 2013 cholesterol treatment guidelines. *Clinical Epidemiology* 2020; 12: 835-845.
4. McGrath LJ, Spangler L, Curtis JR, Ehrenstein V, Sørensen HT, Saul BC, Levintow SN, Reams DR, Bradbury BD, Brookhart MA. Using negative control outcomes to assess the comparability of osteoporosis treatment groups among women with osteoporosis in the United States. *Pharmacoepidemiology and Drug Safety* 2020; 29(8): 854-863.
5. Hershov RB, Gottfredson NC, Ha TV, Chu VA, Lancaster KE, Quan VM, Levintow SN, Sripaipan T, Gaynes BN, Pence BW, Go VF. Longitudinal analysis of depressive symptoms, perceived social support, and alcohol use among HIV-infected men who inject drugs in northern Vietnam. *Substance Use & Misuse* 2020; 55(8): 1237-1245.
6. Dennis AM, Hué S, Billock RM, Levintow SN, Sebastian J, Miller WC, Eron JJ. HIV-1 phylodynamics to detect and characterize active transmission clusters in North Carolina. *Journal of Infectious Diseases* 2019; 221(8): 1321-1330.
7. Levintow SN, Pence BW, Ha TV, Minh NL, Sripaipan T, Latkin CA, Vu PT, Quan VM, Frangakis C, Go VF. Depressive symptoms at HIV testing and two-year survival among men who inject drugs in Vietnam. *AIDS and Behavior* 2019; 23(3): 609-616.

8. Levintow SN, Okeke NL, Hué S, Mkumba L, Virkud A, Napravnik S, Sebastian J, Miller WC, Eron JJ, Dennis AM. Prevalence and transmission dynamics of HIV-1 transmitted drug resistance in a southeastern US cohort. *Open Forum Infectious Diseases* 2018; 5(8): ofy178.
9. Levintow SN, Pence BW, Ha TV, Minh NL, Sripaipan T, Latkin CA, Vu PT, Quan VM, Frangakis C, Go VF. Prevalence and predictors of depressive symptoms among HIV-positive men who inject drugs in Vietnam. *PLOS ONE* 2018; 13(1): e0191548.

Letters to the editor

1. Strassle PD, Rudolph JE, Harrington BJ, & Levintow SN. Lost opportunities concerning loss-to-follow-up: a response to Elul et al. *Journal of Acquired Immune Deficiency Syndromes* 2017; 75(2): e55-e56.

Papers in progress

1. Chen, JS, Levintow SN, Ha TV, Sripaipan T, Nguyen MX, Miller WC, Go VF, Giang LM. HIV and STI prevalence and testing history among men who have sex with men in Hanoi, Vietnam. Revised and resubmitted to *International Journal of STD & AIDS*.
2. Levintow SN, Orroth K, Breskin A, Park AS, Arredondo JF, Dluzniewski P, Navar AM, Sørensen HT, Brookhart MA. Use of negative control outcomes to assess the comparability of patients initiating lipid-lowering therapies. Under review at *Pharmacoepidemiology and Drug Safety*.
3. Levintow SN, Reading SR, Noshad S, Mayer SE, Wiener C, Eledath B, Exter J, Brookhart MA. Lipid testing trends before and after hospitalization for myocardial infarction among adults in the United States, 2008-2019. Under review at *Journal of the American Heart Association*.
4. Levintow SN, Pence BW, Sripaipan T, Ha TV, Chu VA, Quan VM, Latkin CA, Go VF, Powers KA. The role of depression in HIV transmission among people who inject drugs in Vietnam: A mathematical modeling analysis. In preparation.
5. Levintow SN, Powers KA, Golin CE, Knight K, Flynn PM, Carda-Auten J, Groves JS, Pence BW, White BL, Napravnik S, Wohl DA. A mathematical modeling analysis of HIV transmission following release from prisons in the US among participants in the imPACT intervention trial. In preparation.

Oral presentations and abstracts

1. Levintow SN, Reading SR, Noshad S, Mayer SE, Wiener C, Eledath B, Exter J, Brookhart MA. Lipid testing trends before and after hospitalization for myocardial infarction among adults in the United States, 2008-2019. European Society of Cardiology Congress, Virtual Meeting, August 2021 (Oral).
2. Levintow SN, Orroth KK, Breskin A, Dluzniewski P, Park AS, Brookhart MA. Use of negative control outcomes to detect mismeasured confounders in administrative data. International Conference on Pharmacoepidemiology, Virtual Meeting, August 2021 (Poster, Spotlight Session).
3. Levintow SN, Orroth KK, Breskin A, Dluzniewski P, Park AS, Brookhart MA. Use of negative control outcomes to assess the comparability of treatments for hypercholesterolemia. American College of Cardiology Conference, Virtual Meeting, May 2021 (Poster).

4. Levintow SN, Wiener C, Orroth K, Gill K, Mullard A, Brookhart MA, McGrath LJ. History of lipid-lowering therapy use among adults initiating treatment with proprotein convertase subtilisin/kexin type 9 inhibitors (PCSK9i) in the United States, 2015-2019. International Conference on Pharmacoepidemiology, Virtual Meeting, September 2020 (Poster).
5. Wiener C, Levintow SN, Orroth K, Gill K, Mullard A, McGrath LJ, Brookhart MA. Real world treatment patterns following the initiation of proprotein convertase subtilisin/kexin type 9 inhibitors (PCSK9i) among adults in the United States, 2015-2019. International Conference on Pharmacoepidemiology, Virtual Meeting, September 2020 (Poster).
6. Levintow SN, Pence BW, Powers KA, Breskin A, Sripaipan T, Ha TV, Chu VA, Quan VM, Latkin CA, Go VF. Depression, antiretroviral therapy initiation, and HIV viral suppression in a cohort of people who inject drugs in Vietnam. International Workshop on HIV and Hepatitis Observational Databases, Sitges, Spain, March 2020 (Cancelled due to SARS-CoV-2 pandemic).
7. Levintow SN, Reading SR, Saul BC, Yu Y, Reams DR, McGrath LJ, Philip K, Dluzniewski PJ, Brookhart, M.A. Lipid testing trends in the U.S. before and after the release of the 2013 ACC/AHA cholesterol guidelines. American Heart Association Scientific Sessions, Philadelphia, PA, November 2019 (Poster).
8. McGrath LJ, Spangler L, Curtis JR, Ehrenstein V, Sørensen HT, Saul BC, Levintow SN, Reams DR, Bradbury BD, Brookhart MA. Using negative control outcomes to assess the comparability of osteoporosis treatment groups among women with osteoporosis in the United States. International Conference on Pharmacoepidemiology, Philadelphia, PA, August 2019 (Oral).
9. Levintow SN, Pence BW, Powers KA, Sripaipan T, Ha TV, Chu VA, Quan VM, Latkin CA, Go VF. The effect of depression on HIV transmission risk behaviors among people who inject drugs in Vietnam. International Workshop on HIV and Hepatitis Observational Databases, Athens, Greece, March 2019; and Annual Meeting of the Society for Epidemiologic Research, Minneapolis, MN, June 2019 (Posters).
10. Levintow SN, McGrath LJ, Cole SR, Brookhart MA. Estimating cumulative risk in the presence of competing events and dependent censoring in pharmacoepidemiology studies. International Conference on Pharmacoepidemiology and Therapeutic Risk Management, Prague, Czech Republic, August 2018 (Oral).
11. Levintow SN, Powers KA, Golin CE, Knight K, Flynn PM, Carda-Auten J, Groves JS, Pence BW, White BL, Napravnik S, Wohl DA. A mathematical modeling analysis of HIV transmission following release from prisons in the US among participants in the imPACT intervention trial. International AIDS Conference, Amsterdam, Netherlands, July 2018 (Poster).
12. Levintow SN, Pence BW, Ha TV, Minh NL, Sripaipan T, Latkin CA, Vu PT, Quan VM, Frangakis C, Go VF. Depressive symptoms at HIV testing and two-year survival among men who inject drugs in Vietnam. Annual Meeting of the Society for Epidemiologic Research, Baltimore, MD, June 2018 (Poster).
13. Levintow SN, Okeke NL, Mkumba L, Virkud A, Davy-Méndez T, Napravnik S, Sebastian J, Hué S, Miller WC, Eron JJ, Dennis AM. Prevalence and transmission dynamics of HIV-1 transmitted drug resistance in central North Carolina. International AIDS Society Conference on HIV Science, Paris, France, July 2017 (Poster).

14. Levintow SN, Powers KA, Pence BW, Meshnick SR, Latkin CA, Go VF. Forward HIV transmission among people who inject drugs in Vietnam. Clinic on Meaningful Modeling of Epidemiological Data, African Institute for Mathematical Sciences, Muizenberg, South Africa, June 2017 (Poster).
15. Levintow SN, Pence BW, Ha TV, Minh NL, Sripaipan T, Latkin CA, Vu PT, Quan VM, Frangakis C, Go VF. A risk score for depressive symptoms among HIV-positive men who inject drugs in Vietnam. Annual Meeting of the American Public Health Association, Denver, CO, October 2016 (Poster).
16. Tonidandel A, Levintow SN, Tonidandel S, Thomas, J. The effectiveness of high fidelity simulation in the training of anesthesia providers: A meta-analysis of prospective trials. Annual Conference of the Society for Obstetric Anesthesia and Perinatology, Las Vegas, NV, April 2011 (Poster).

Doctoral dissertation

Levintow SN. The role of depression in HIV transmission among people who inject drugs in Vietnam. Dissertation, the University of North Carolina at Chapel Hill. Ann Arbor: ProQuest/UMI, 2020 (ProQuest document ID 27833745).

GRANTS

Current

Co-Investigator (PI: Kimberly Powers)

R21 NR018805

The impacts of COVID-19 on the HIV care continuum, HIV care trajectories, and HIV transmission in North Carolina

National Institute of Nursing Research

July 1, 2020 – June 30, 2022

Co-Investigator: Mathematical modeling sub-contract (PI: Kimberly Powers)

R01 AI143875 (co-PIs: Aaron Siegler, Patrick Sullivan)

Integrating a combination HIV prevention intervention into a widely used geosocial networking app for Chinese men who have sex with men

National Institute of Allergy and Infectious Diseases

January 23, 2019 – December 31, 2022

Co-Investigator: Statistical and mathematical modeling (PI: Lisa Hightow-Weidman)

R44 MH104102

Tough Talks: A disclosure intervention for HIV-positive young men who have sex with men

National Institute of Mental Health

June 1, 2017 – May 31, 2021

Pending

Principal Investigator

K01 Mentored Research Scientist Development Award (submitted October 2021)

Investigating SARS-CoV-2 transmission dynamics in jails to address the COVID-19 public health emergency

July 1, 2022 – June 30, 2027

Completed

Principal Investigator

R36 DA045569

The role of depression in HIV transmission among people who inject drugs in Vietnam

National Institute on Drug Abuse

August 1, 2018 – July 31, 2021

Co-Investigator (PI: Kimberly Powers)

UNC Center for AIDS Research (developmental award)

Formative research to develop a prospective, population-based cohort of newly HIV-diagnosed persons in NC

October 1, 2017 – April 30, 2019

Pre-Doctoral Trainee (co-PIs: Brian Pence, Steven Meshnick)

T32 AI070114

Training in Infectious Disease Epidemiology

National Institute of Allergy and Infectious Diseases

August 1, 2016 – July 31, 2018

TEACHING RECORD

Course Instruction

Co-Lead Instructor, UNC Chapel Hill

Data Management in SAS and R, EPID 700 (31 students) 2019

R for Epidemiologists, EPID 799C (20 students) 2018

Teaching Assistantships, UNC Chapel Hill

R for Epidemiologists, EPID 799C 2017

Theory and Quantitative Methods in Epidemiology / Epidemiologic Data Analysis, EPID 715 / 716 2017

Guest Lectures, UNC Chapel Hill

A Gentle Introduction to Simulations for Epidemiology, EPID 799A 2020

Introduction to Infectious Disease Epidemiology, EPID 755 2019-2020

Analytic Methods in Observational Epidemiology, EPID 718 2018

SAS and Data Management, EPID 700 2017-2018

Advanced Methods in Infectious Disease Epidemiology, EPID 754 2017

Workshop Instructor

“R for Epi and Public Health” one-day workshop (cancelled due to SARS-CoV-2 pandemic) Sponsored by North Carolina Institute for Public Health	May 1, 2020
“R for Population Health” one-day workshop (26 participants) Sponsored by NoviSci Inc., Duke University, and American Underground	October 31, 2019
“R Primer for Population Health Sciences” one-day workshop (12 participants) Sponsored by Duke University	August 16, 2019
“R for Epi and Public Health” one-day workshop (20 participants) Sponsored by North Carolina Institute for Public Health	May 9, 2019

SERVICE

Class Ambassador, Davidson College	2021-present
Peer Reviewer <i>AIDS and Behavior, AIDS Care, AIDS Research and Treatment, American Journal of Epidemiology, BMC Infectious Diseases, Drug and Alcohol Dependence, International Journal of STD & AIDS, Journal of Acquired Immune Deficiency Syndromes, Journal of Psychoactive Drugs, Microbial Drug Resistance, Open Forum Infectious Diseases, Virology</i>	2017-present
HIV/STI Counselor, Student Health Action Coalition, UNC Chapel Hill	2017-2020
Chair Search Committee Member, Department of Epidemiology, UNC Chapel Hill	2017
Master’s Practicum, Durham County Department of Public Health	2015

MEMBERSHIPS

International Society for Pharmacoepidemiology	2018-Present
Society for Epidemiologic Research	2018-Present
International AIDS Society	2017-Present
American Public Health Association	2016-Present