

CURRICULUM VITAE
Clara E. Busse, MPH

PERSONAL INFORMATION

Address: Carolina Population Center
123 W Franklin St
Chapel Hill, NC 27516
Phone: (269) 779-4154
Email: cesbusse@email.unc.edu

EDUCATION

2019-Present **PhD, Maternal and Child Health, Minor in Epidemiology**
University of North Carolina, Chapel Hill, NC
Dissertation: *“Postpartum acute care utilization: patterns and birthing parent perspectives”*
Dissertation Chair: Alison Stuebe

2017-2019 **MPH, Global Health Epidemiology**
University of Michigan, Ann Arbor, MI
Capstone: *“Self-administered medicinal plant use by Ghanaian women during pregnancy is associated with poor neonatal health”*
Advisors: Mark Wilson, Cheryl Moyer

2012-2016 **Bachelor of Arts, Biology, Minor in Chemistry**
Hope College, Holland, MI

RELEVANT EXPERIENCE

NICHD Reproductive, Perinatal and Pediatric (RPPE) T32 Predoctoral Trainee August 2022-Present
University of North Carolina, Chapel Hill, NC

- Leading mixed-methods dissertation research regarding postpartum acute care use (emergency department visits and hospital readmissions).
- Participating in bi-weekly seminars and journal clubs related to reproductive, perinatal and pediatric epidemiology.

Predoctoral Trainee at the Carolina Population Center August 2020-Present
University of North Carolina, Chapel Hill, NC

- Leading a study of contraceptive use and discontinuation among adolescent women in 55 low- and middle-income countries using Demographic and Health Survey contraceptive calendar data.
- Participating in a weekly interdisciplinary population science seminar and workshop.
- Led an analysis of informal payments for modern contraceptives in Tanzania using 2015-16 Tanzania Demographic and Health Survey data.

Oak Ridge Institute for Science and Education (ORISE) Fellow August 2021-July 2022
Division of Epidemiology, Maternal and Child Health Bureau, Rockville, MD

- Provided technical assistance to selected programs and evaluation activities to support the maternal health efforts of the Maternal and Child Health Bureau (MCHB).

- Conducted and presented analyses of state- and national-level data related to maternal and child health.

Intern at the Office of Epidemiology and Research

June 2020-June 2021

Maternal and Child Health Bureau, Rockville, MD

- Developed an analysis of food insecurity and early childhood flourishing using data from the 2018-19 National Survey of Children's Health.
- Supported the Maternal and Child Health Bureau's COVID-19 response by co-authoring the COVID-19 Situational Awareness Key Findings Report and briefing the administrative leadership of the Maternal and Child Health Bureau (MCHB).
- Assessed measurement of key sociodemographic variables across programs to streamline MCHB's performance measurement approach.

Research Intern for the Patient Safety Learning Lab (PSLL)

January 2020-May 2020

University of North Carolina Hospital, Chapel Hill, NC

- Created an interactive dashboard in Tableau, a data analysis and visualization platform, to visualize quality metrics from PSLL clinical data to identify postnatal unit issues and solutions.
- Synthesized scientific literature regarding perinatal health to support PSLL project aims.
- Participated in PSLL research group meetings to share findings and troubleshoot challenges.

Research Scientist at Pre-Publication Support Service (PREPSS)

May 2020-August 2020

University of Michigan School of Public Health, Ann Arbor, MI

- Designed and led a systematic review of manuscript writing interventions for researchers in low- and middle-income countries.

Associate Editor at Pre-Publication Support Service (PREPSS)

May 2019-May 2020

University of Michigan School of Public Health, Ann Arbor, MI

- Connected researchers in low- and middle-income countries (LMICs) to academic reviewers in the U.S. to support publication of their research in academic journals.
- Developed and co-led educational webinars for researchers in LMICs on topics related to scientific writing and publishing.
- Led a research study to assess the efficacy of the PREPSS model of writing support.

Assistant Editor at Pre-Publication Support Service (PREPSS)

September 2018-May 2019

University of Michigan School of Public Health, Ann Arbor, MI

- Revised cover letters and abstracts for PREPSS clients to improve journal submission materials.
- Managed email communications between clients and reviewers to ensure timely and clear correspondence.

Project Manager and Research Intern for Birth Asphyxia Study

January 2018-May 2019

North Suntreso Government Hospital, Kumasi, Ghana

- Developed a novel research project alongside partners at Suntreso Government Hospital (SGH) in Ghana to assess the burden of birth asphyxia, its correlates, and predictors at an urban hospital in Ghana using a mixed-methods observational study design.
- Carried out prospective, primary data collection for over 500 participants.
- Conducted semi-structured interviews with 16 midwives, nurses, and physicians at SGH to explore provider knowledge concerning birth asphyxia and its management.
- Analyzed study results and disseminated findings via a manuscript, poster presentation, and direct correspondence with partners at SGH.

Project Associate

May 2016-June 2017

Michigan State University Bioeconomy Institute, Holland, MI
 Aqua Clara International, Holland, MI

- Optimized arsenic filter designs through experimentation to improve filtration units to be deployed in mining communities in low- and middle-income countries.
- Synthesized scientific literature for use in grant writing and newsletters.
- Compiled two detailed internal reports documenting progress of laboratory research.

Undergraduate Research Assistant

January 2013-May 2016

Department of Biology, Hope College, Holland, MI

- Investigated the regulation of *OLE1* and *NRO2* genes in *Saccharomyces cerevisiae* using PCR, gel electrophoresis, ligation, transformation, and DNA extraction techniques to investigate dyslipidemia in a model organism.
- Determined the sterol profiles of *Candida albicans ARV1* mutants using PCR, gel electrophoresis, DNA and lipid extraction protocols, and gas chromatography to support the development of novel anti-fungal drug targets.
- Prepared five poster presentations, two oral presentations, and two research proposals.

Mellon Scholar Summer Research Fellow

August 2014

Hope College, Holland, MI

- Led a qualitative study collecting the oral histories of Hispanic migrant and seasonal farmworkers (MSFW) in Michigan to improve understanding of MSFW life experiences, healthcare use, and unmet health needs.
- Analyzed qualitative data and disseminated findings via a manuscript and multiple oral and poster presentations to improve health services for MSFW.

HONORS

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| 2018 | Global Health Essay Award Winner, Consortium of Universities for Global Health |
| 2016 | Hope College Summa Cum Laude |
| 2016 | Senior Sigma Xi Research Award |
| 2016 | Patterson Award in Biology for Superior Scholarship |
| 2014 | Wolterink Prize in Biology for Excellence in Research |
| 2012-2016 | Hope College Dean's List 8/8 Semesters |

MEMBERSHIPS

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|--------------|---|
| 2021-Present | Society for Pediatric and Perinatal Epidemiologic Research |
| 2021-Present | Population Association of America |
| 2016-Present | Phi Beta Kappa |
| 2015-Present | Beta Beta Beta National Biological Honor Society Member Elected President of Alpha Eta Chapter (2015-2016) |
| 2015 | Mortar Board: National College Senior Honor Society Member |

REFEREE

- BMJ Global Health
- Journal of Women's Health

BIBLIOGRAPHY

Peer-reviewed publications

Note: I have published under the last names Busse and Schriemer

Published

1. **Busse CE**, Donney J, Busse KR, Ghandour R, Vladutiu CJ. Household food insufficiency and early childhood flourishing in a nationally representative sample of young children in the U.S. *Annals of Epidemiology*. 2022; S1047-2797(22)00267-8. doi: 10.1016/j.annepidem.2022.10.011. Epub ahead of print. PMID: 36283627.
2. **Busse CE**, Anderson EW, Endale T, Smith YR, Kaniecki M, Shannon C, August ET. Strengthening research capacity: a systematic review of manuscript writing and publishing interventions for researchers in low-income and middle-income countries. *BMJ Global Health*. 2022; 7, 8059. <https://doi.org/10.1136/bmjgh-2021-008059>
3. **Busse CE**, Onyango D, Tumlinson K. Informal payments for modern family planning methods at public facilities in Tanzania: room for improvement. *Human Resources for Health*. 2022; 20(1), 1–9. <https://doi.org/10.1186/S12960-022-00712-5>
4. **Busse CE**, Wilson M, Bakari A, Moyer C. Self-reported medicinal plant use by Ghanaian women during pregnancy is associated with poor neonatal health. *Journal of Public Health*. 2021. doi: 10.1093/pubmed/fdab033
5. **Busse CE**, August E. How to Write and Publish a Research Paper for a Peer-Reviewed Journal. *J Cancer Educ*. 2020. doi:10.1007/s13187-020-01751-z
6. **Busse CE**, August E. Addressing power imbalances in global health: Pre-Publication Support Services (PREPSS) for authors in low-income and middle-income countries. *BMJ Glob Heal*. 2020; 5(2):1-6. doi:10.1136/bmjgh-2020-002323
7. Willey M, Ochs M, **Busse CE**, McDonough V. A Transcriptional Regulatory System of the *S. cerevisiae* OLE1 Gene Responds to Fatty Acid Species and Intracellular Amount, and not Simply Membrane Status. *J Lipids*. 2020; 2020:1-7. doi:10.1155/2020/3903257
8. Hagood J, **Schriemer CE**. Oral history and farmworker studies. *Int J Migr Heal Soc Care*. 2018;14(1). doi:10.1108/IJMHS-08-2016-0033

Under Review

1. **Busse CE**,* Dissanyake M,* Latour C,* Dejene S, Knittel A, Wood M, Kinlaw A. Longitudinal trends in long-acting reversible contraceptives among commercially insured individuals from 2010-2020. *shared first authorship

Submitted

1. **Busse CE**, Stuebe AM, Tumlinson K, Tucker C, Vladutiu CJ, Pence B, Tully KP. Birthing parent postpartum acute care utilization: Lessons learned perinatal health systems.
2. **Busse CE**, Tumlinson K, Senderowicz L. Contraceptive use and discontinuation among adolescent women in 55 low- and middle-income countries.
3. Bruce K, **Busse CE**, Tully K, Patterson E, Stuebe A. Predelivery hemoglobin and postpartum acute care use in a southeastern healthcare system, 2018-2021.

In Progress

1. **Busse CE**, Pence B, Vladutiu CJ, Tucker C, Tumlinson K, Stuebe AM. Patterns of postpartum acute care utilization in a southeastern healthcare system, 2021-2023.
2. **Busse CE**, Pence B, Vladutiu CJ, Tucker C, Tumlinson K, Stuebe AM. Blood pressure during the childbirth hospitalization and postpartum acute care use in a southeastern healthcare system, 2021-2023.

3. **Busse CE**, Vladutiu CJ, Mallampati D, Menard K. Postpartum emergency care visits among North Carolina Medicaid beneficiaries, 2013-2019.
4. Vladutiu CJ, Sizelove R, **Busse CE**, Mallampati D, Menard K. Emergency care use before and during implementation of the Pregnancy Medical Home among North Carolina Medicaid beneficiaries.

Conference oral presentations

1. Latour CD, **Busse CE**, Dissanayake MV, Dejene SZ, Knittel AK, Wood ME, Kinlaw AC. New Long-Acting Reversible Contraceptive Insertions More Than Doubled Among a Commercially Insured, U.S.-Based Outpatient Population from 2010 to 2020. Academy Health Annual Meeting, 2023, Seattle, WA.
2. **Busse CE** and Tumlinson K. Contraceptive use and discontinuation among adolescent women in 55 low- and middle-income countries. Population Association of America Annual Meeting, 2022, Atlanta, GA.
3. Wilkes A, Vladutiu CJ, **Busse CE**, Tissue M, Warren M. Addressing the needs of MCH populations during the COVID-19 pandemic: HRSA Maternal and Child Health Bureau's Response. CityMatCH Maternal and Child Health Epidemiology Conference, 2021, online.
4. **Schriemer CE**, Wilson M, Bakari A, Moyer CA. Exploring herb use during pregnancy in an urban Ghanaian hospital. Unite for Sight Annual Global Health and Innovation Conference, 2019, New Haven, CT.
5. **Schriemer CE**, McDonough V. Differential regulatory response for the $\Delta 9$ desaturase in *Saccharomyces cerevisiae* based on fatty acid species and intracellular amount. American Society of Biochemistry and Molecular Biology Annual Meeting, 2014, San Diego, CA.
6. **Schriemer CE**, Hagood J. Two Champions of Migrant Healthcare in Southwest Michigan: Models for Successful Intervention. Michigan Academy of Sciences, Arts and Letters Annual Meeting, Oakland University, 2014, Rochester, MI.

Conference poster presentations

1. Dissanayake MV, **Busse CE**, Latour CD, Dejene SZ, Knittel AK, Wood ME, Kinlaw AC. New Long-Acting Reversible Contraceptive Insertions More Than Doubled Among a Commercially Insured, U.S.-Based Outpatient Population from 2010 to 2020. Society for Epidemiologic Research Annual Meeting, 2023, Portland, OR.
2. Bruce K, **Busse C**, Tully K, Patterson E, Stuebe A. Association between pre-delivery anemia and postpartum acute care utilization – North Carolina, 2018-2021. Society for Maternal-Fetal Medicine Annual Meeting, 2023, San Diego, CA.
3. Stuebe A, Bruce K, **Busse C**, Quist-Nelson J, McKenzie C, Patterson E, Tully K. Cumulative blood loss and maternal early warning system triggers. Society for Maternal-Fetal Medicine Annual Meeting, 2023, San Diego, CA.
4. Stuebe A, Bruce K, **Busse C**, Quist-Nelson J, McKenzie C, Patterson E, Tully K. Vital signs associated with Class I-IV blood loss within 24 hours of birth. Society for Maternal-Fetal Medicine Annual Meeting, 2023, San Diego, CA.
5. **Busse CE**, Vladutiu CJ, Mallampati D, Molina M, Menard KM. Postpartum emergency care visits among North Carolina Medicaid beneficiaries. Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting, 2022, Chicago, IL.
6. Stuebe AM, **Busse CE**, Patterson E, Tully KP. Elevated post-delivery blood pressure and acute care utilization. Society for Maternal-Fetal Medicine Annual Meeting, 2022, online.
7. **Busse CE**, Donney J, Vladutiu CJ, Ghandour R. Food insufficiency and childhood flourishing in a nationally representative sample of young children in the U.S. CityMatCH Leadership and Maternal and Child Health Epidemiology Conference, 2021, online.

8. **Busse CE**, Tumlinson K. Investigating out-of-pocket payments for modern contraception in Tanzania using a nationally representative sample of family planning users. Population Association of America Annual Meeting, 2021, online.
9. Stuebe A, Tully K, Hansen CJ, **Busse CE**, Patterson ES. Risk factors for acute care utilization in the 90 days following childbirth. Society for Maternal-Fetal Medicine Annual Meeting, 2021, online.
10. **Schriemer CE**, Hagood J. Migrant Seasonal Farmworker Health Care in Southwest Michigan: Models for Successful Cross-Cultural Intervention. Cross-Cultural Healthcare Conference, 2015, Honolulu, HI.
11. **Schriemer CE**, McDonough V. Effect of the *ARVI* Mutation on Sterol Profiles of *Candida albicans*. West Michigan Regional Undergraduate Science Research Conference at Van Andel Institute, 2014, Grand Rapids, MI.
12. **Schriemer CE**, McDonough V. Fatty acid species and amount differentially regulate the $\Delta 9$ desaturase in *Saccharomyces cerevisiae*. Mid-States Consortium Undergraduate Research Symposium in Biology Annual Meeting, 2013, St. Louis, MO; West Michigan Regional Undergraduate Science Research Conference, 2013, Grand Rapids, MI.

Conference abstracts under review

1. Vladutiu CJ, **Busse CE**, Sizelove R, Mallampati D, Molina M, Menard K. Emergency care visits among pregnant Medicaid beneficiaries in North Carolina. American Public Health Association 2023 Annual Meeting.

Other publications

1. **Busse CE**. Essay, “On Toughness and Apathy” in Reflection in Global Health: An Anthology, Second Volume. (in press)
2. **Busse CE**, Lloyd S, Wilkes A, Vladutiu CJ. Chapter, “Promoting Federal Partnerships for Effective Program Implementation” in Practical Playbook III: Working Together to Improve Maternal Health. (in press)

TEACHING EXPERIENCE

Graduate teaching experience

Fall 2021 Department of Maternal and Child Health
 Gillings School of Global Public Health, Chapel Hill, NC
 Teaching Assistant for MHCH701: Foundations of Maternal and Child Health 1

Graduate lectures/talks

February 8, 2023 Gillings School of Global Public Health, Chapel Hill, NC
 “Birthing parent perspectives on postpartum acute care use: lessons learned for strengthening systems of perinatal health care”
 Reproductive, Pediatric, and Perinatal Epidemiology Seminar Series

September 22, 2022 Carolina Population Center, Chapel Hill, NC
 “Contraceptive Use and Discontinuation among Adolescent Women in 55 Low- and Middle-Income Countries”
 Population Science Seminar

- March 22, 2022 Gillings School of Global Public Health, Chapel Hill, NC
 “Strengthening research capacity in low- and middle-income countries: introduction to our systematic review in BMJ Global Health”
 Lecture in SPHG600: Introduction to Public Health
- November 16, 2021 Gillings School of Global Public Health, Chapel Hill, NC
 “Perinatal Behavioral Health”
 Lecture for MHCH701: Foundations of Maternal and Child Health 1
- November 4, 2021 Carolina Population Center, Chapel Hill, NC
 “Demographic Health Survey Contraceptive Calendar Data”
 Flash Talk Presentation at the Population Science Seminar

Invited community lectures

- October 27, 2022 Chapel Hill, NC (Zoom)
 “Birthing parent accounts of postpartum acute care use: lessons learned for strengthening the system of care”
 North Carolina Maternal Health Innovation Community of Practice
- June 13, 2018 Suntreso Government Hospital, Kumasi, Ghana
 “Developing an Idea into a Research Proposal”
 Presentation to Physicians and House Officers
- Fall 2015 58D Probation Court, Holland, MI
 “Migrant Farmworkers in West Michigan”
 Presentation to Staff of 58D Probation Court
- Fall 2015 Ready for School, Holland, MI
 “Serving Migrant Farmworkers and their Families”
 Presentation to Ready for School Board of Directors
- Summer 2015 Pillar Church, Holland, MI
 “Faith and Justice: Our Neighbors (Migrant Farmworkers)”
 Presentation for “Faith and Justice” community lecture series

Undergraduate teaching experience

- Fall 2014, Fall 2015 Department of Biology, Hope College, Holland, MI
 Teaching Assistant for Biology 240 Cells and Genetics Laboratory
- Fall 2013 Academic Success Center, Hope College, Holland, MI
 Academic Tutor for Chemistry 125: General Chemistry I

FUNDING AWARDS

University of North Carolina, Chapel Hill, NC

- 08/2022-Present Reproductive, Pediatric and Perinatal Epidemiology Training Program
 University of North Carolina at Chapel Hill, NC
 NICHD-Funded T32 Predoctoral Traineeship

(1-year award value \$26,352, tuition, insurance fees)

08/2021-07/2022 Oak Ridge Institute for Science and Education (ORISE) Fellowship
Department of Health and Human Services
(1-year award value \$28,296 and \$2,150 for travel and training)

08/2020-08/2021 Carolina Population Center
University of North Carolina, Chapel Hill, NC
NICHD-Funded T32 Predoctoral Traineeship
(1-year award value \$25,320, tuition, insurance fees)

08/2019-Present Royster Society of Fellows, University of North Carolina
University of North Carolina, Chapel Hill, NC
Caroline H. and Thomas S. Royster Fellowship
(5-year award value > \$250,000)

University of Michigan School of Public Health, Ann Arbor, MI

08/2017-05/2019 Full Dean’s Award (2-year award value >\$56,000)

05/2018-07/2018 Gelman Global Scholarship (\$4,500)

05/2018-07/2018 Epidemiology Departmental Fund (\$1,000)

05/2018-07/2018 Reproductive and Women’s Health Fund (\$350)

Hope College, Holland, MI

08/2012-05/2016 Presidential Scholarship (\$16,000 per academic year)

01/2015 Travel Award for Conference Attendance (\$902)

08/2014 Andrew W. Mellon Foundation Scholars Program in the
Arts and Humanities Summer Research Fellowship
(\$1,400 and housing provided)

05/2014-07/2014 Howard Hughes Medical Institute Summer Research Scholar
(\$4,050 and housing provided)

05/2014 National Science Foundation Student Research Travel Award (\$900)

05/2013-07/2014 Summer Hope Academic Research Program Recipient
(\$4,700 and housing provided)

SERVICE

University of North Carolina at Chapel Hill

Prospective Students Committee

September 2021-Present

- Meeting with prospective doctoral students as needed to answer their questions about the academic program and student life at UNC.

Population Science Training Program Predoctoral Representative September 2021-August 2022

- Elevated student feedback and concerns to the training program directors and manager to improve quality of the training program.

Volunteer at UNC COVID Vaccine Service

February 2021-April 2021

UNC Friday Center, Chapel Hill, NC

- Supported COVID-19 vaccine distribution at UNC by asking health screening questions and directing patients through the vaccination center for 5.5 hours per week.

Volunteer Epidemiologist at Emergency Operations Center

March 2020

Wake County Health Department, Raleigh, NC

- Calculated descriptive statistics for confirmed COVID-19 cases by sociodemographic characteristics in Wake County, NC.
- Projected hospital capacity needs and case counts through spring 2020 in Wake Country, NC to inform resource allocation at local hospitals and health centers.