

## CURRICULUM VITAE

Kimberly Schmitt McKee, Ph.D., M.P.H.

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**Current Position:** Assistant Professor, Department of Family Medicine  
University of Michigan School of Medicine, Ann Arbor, MI

### Academic Preparation:

- 2017 Post-doctoral Research Fellow, Women's Health, Family Medicine  
University of Michigan School of Medicine, Ann Arbor, MI
- 2015 PhD, Epidemiology. Dissertation: *Cumulative Physiologic Dysfunction and Pregnancy: Biological Mechanisms of Neighborhood Deprivation on Birth Outcomes*  
University of Rochester School of Medicine, Rochester, NY
- 2011 - 2014 Pre-Doctoral Fellowship  
Research Training in Preventive Cardiology,  
NHLBI Training Grant: T32 HL007937
- 2009 MPH, University of Rochester School of Medicine, Rochester, NY
- 2004 BA, English Honors, College of the Holy Cross, Worcester, MA

### Research Interests:

- Translational maternal and child health research, including biological mechanisms of preterm birth and adverse birth outcomes
- The microbiome in pregnancy and its reproductive and child health correlates
- Women's health across the life course

### Grants:

#### Current

McKee (PI) 9/1/19-8/31/21  
Environmental Influences on Child Health Outcomes (ECHO) Opportunities and Infrastructure Fund (OIF)

*Validation of Maternal Vaginal Microbiota Signatures in Pregnancy: The ECHO Vaginal Microbiome Collaboration Project*

The objectives of this study are to validate vaginal microbiota signatures in pregnancy across several geographically diverse ECHO sites and to identify clinical, demographic, and environmental factors that shape the vaginal microbiome in pregnancy.

McKee (PI)  
N025330-00

5/1/18-9/1/20

Environmental Influences on Child Health Outcomes (ECHO) Michigan Opportunities and Infrastructure Fund

*The Maternal Microbiome and Infant Outcomes in the MARCH/ECHO Study*

The study objective is to assess the maternal microbiome in pregnancy and its association with birth outcomes among children enrolled in a Michigan ECHO cohort.

R01 HD090103 Mitra

09/11/17 – 05/31/22

Brandeis University / NIH

*Pregnancy Outcomes and Experiences Among Deaf and Hard of Hearing Women*

This project will include survey development work, data collection and analysis, qualitative data analysis, and preparation of reports involving mixed methods data. Results will be shared with three sites and presentations of research project, manuscripts and advisory board meeting reports will be used to develop practice recommendations.

Role: Co-Investigator

ECHO COVID Supplement Comstock

RC108889

9/1/20-8/30/21

Microbial Mediators of the Impact of Maternal Psychosocial Stress during COVID-19 on Perinatal and Neurodevelopmental Outcomes

Role: Co-Investigator

Paneth (PI)

3/1/18- 9/30/19

NIH (sub-contract Michigan State University)

*MARCH: The Michigan Archive for Research in Child Health*

A state-wide study cohort that is part of the larger national Environmental Influences on Child Health Outcomes effort to study pregnant women and their children in a longitudinal study of maternal and child health across a range of exposures and child health outcomes.

Role: Co-I, Site Director

Langen (PI)

3/1/18- 12/31/19

University of Michigan Microbiome Explorer Program

*Microbiome Alterations in Women with Cervical Cerclage*

The goal of this study is to understand if and how cervical cerclage alters the vaginal microbiota and its association with gestational age at delivery.

Role: Co-I

Langen (PI)

5/1/17-5/1/20

University of Michigan, Department of Obstetrics and Gynecology

*University of Michigan Pregnancy Biorepository*

The purpose of the study is to investigate human disease that may start in utero by collecting and storing a range of biological samples during pregnancy and provide a mechanism to longitudinally examine health outcomes for future maternal and child health research.

Role: Co-I

Pending

Clinical, Psychosocial, Inflammatory, and Placental Predictors of Covid-19 on Perinatal Outcomes (March of Dimes)

Role: PI

Maternal Morbidity and Severe Maternal Morbidity among Deaf and Hard of Hearing Women (NIH)

Role: co-I

Completed

McKee (PI)

Department of Family Medicine Building Block Program 10/01/16 - 09/30/17

*Psychosocial Stress and Vaginal Microbiome: A Pilot Study of Preterm Birth Risk Factors*

The objective of this study was to create a small cohort of women in pregnancy and to examine psychosocial and biological risk factors for preterm birth.

McKee (PI)

University of Michigan Microbiome Explorer Program 4/1/16-2/1/18

*Psychosocial Stress and Vaginal Microbiome: A Pilot Study of Preterm Birth Risk Factors*

This mechanism covers the DNA isolation and sequencing for 16S rRNA gene amplicon sequencing for vaginal microbiota characterization of samples collected longitudinally during pregnancy as well as bioinformatics analytic support to examine associations with psychosocial factors and other clinical metadata.

McKee/Ruffin (Co-PI)

10/01/16 - 07/1/18

Microbiome Explorer Program (UM HMI Core)

*Vaginal Microbiome, High Risk HPV, and Cervical Cytology*

This study examines the links between psychosocial constructs, HPV, cervical cytology, and vaginal microbiota differences in a high-risk cohort of women from Appalachia Ohio in the CARE 3 study.

Fernandez/Olson (co-PI)

05/01/11 - 05/01/14

U01 HL096760

*Randomized Clinical Trial of Weight Management In Pregnant and Postpartum Women*

This randomized clinical trial tested electronic interventions to prevent excessive gestational weight gain and postpartum weight retention.

Role: Graduate Student Research Assistant

Pearson-PI

07/01/11 - 06/31/14

T32 HL007937

*Preventive Cardiology Pre-doctoral Fellowship*

Fellowship provided mentored training in cardiovascular epidemiology, including preventive cardiology and metabolic biomarkers in population-based research.

Role: Funded Trainee

## Bibliography:

1. McKee K, Admon LA, Winkelman TNA, Muzik M, Hall S, Dalton VK, Zivin K. Perinatal Mood and Anxiety Disorders, Serious Mental Health Illness, and Delivery-Related Health Outcomes, United States, 2006-2015. *BMC Women's Health* 20 (1).
2. McKee KS, Carter KA, Bassis C, Young VB, Reed B, Harper DM, Ruffin MT 4th, Bell JD. The vaginal microbiota, high-risk human papillomavirus infection, and cervical cytology: results from a population-based study. *Gynecol Pelvic Med* 2020 doi: 10.21037/gpm-20-10
3. McKee KS, Bassis C, Murali S, Bell J, Young V. The vaginal microbiota in pregnancy and spontaneous preterm birth. *American Journal of Obstetrics & Gynecology* 2019; 221 (6): 668.
4. Mitra M, McKee M, Akobirshoev I, Valentine A, Ritter G, Zhang J, McKee K, Iezzoni L. Pregnancy, Birth, and Infant Outcomes Among Women Who are Deaf or Hard of Hearing. *AJPM*; 2020 58:3. <https://doi.org/10.1016/j.amepre.2019.10.012>
5. Morrison L, Dejonckheere M, Nichols L, Smith G, Plegue M, McKee KS, Koomen K, Mirchandani A, Adams E, Chang T. Gestational weight gain among young mothers: Knowledge, behaviors, and social factors (accepted, *Journal of Pediatric and Adolescent Gynecology*).
6. McKee KS, Bassis C, Carter K, Young V, Harper D, Reed B, Ruffin MT, Bell J. Vaginal Microbiota, High-risk Human Papillomavirus Infection, and Cervical Intraepithelial Neoplasia: A Population-Based Study. *American Journal of Obstetrics and Gynecology*, accepted.
7. Carter K, Bassis C, McKee KS, Bullock K, Eastman A, Young V, Bell J. The impact of tampon use on the vaginal microbiota across four menstrual cycles. *American Journal of Obstetrics and Gynecology*, 2018: 219 (6).
8. Reed B, McKee KS, Plegue M, Park SK, Haefner HK, Harlow SD. Environmental exposure history and vulvodynia risk: A population-based study. *J Women's Health*. 2019; 28(1): 69-76.
9. McKee KS, Seplaki C, Fisher S, Groth S, Fernandez ID. Cumulative physiologic dysfunction and pregnancy: characterization and association with birth outcomes. *Matern Child Health J* 2017;21(1):147-55.

10. Wu JP, McKee MM, McKee KS, Meade MA, Plegue M, Sen A. Female sterilization is more common among women with physical and/or sensory disabilities than women without disabilities in the United States. *Disabil Health J* 2017 Jan 3.
11. Wu JP, McKee KS, McKee MM, Meade MA, Plegue M, Sen A. Use of reversible contraceptive methods among U.S. women with physical or sensory disabilities. *Perspect Sex Reprod Health* 2017 May 17.
12. Wu JP, McKee KS, Meade M, McKee M, Sen A. Contraceptive use among women with vision or hearing loss: a secondary analysis of the National Survey of Family Growth, 2011-2013. *Contraception* 2016; 94 (4): 431.
13. Dozier AM, McKee KS. State breastfeeding worksite policies...breastfeeding rates...and... *Breastfeeding Med* 2011;6(5):319-24.
14. McKee MM, McKee KS, Winters P, Sutter E, Pearson T. Higher educational attainment but not higher income is protective for cardiovascular risk in Deaf American Sign Language (ASL) users. *Disabil Health J* 2014;7(1):49-55.

*In preparation:*

1. McKee KS, Bassis C, Carter K, Bell J, Young VB. The Maternal Vaginal Microbiota in Pregnancy: Characterization and Association with Birth Outcomes.

**National Presentations:**

1. McKee KS, Bassis C, Carter K, Bell J, Young VB. The Maternal Vaginal Microbiota in Pregnancy: Characterization and Association with Birth Outcomes. Infectious Diseases Society for Obstetrics and Gynecology Annual Meeting, Big Sky, MT, August 9, 2019. *Poster Presentation*.
2. McKee KS, Bassis C, Carter K, Young V, Harper D, Reed B, Ruffin MT, Bell J. Vaginal Microbiota, High-risk Human Papillomavirus Infection, and Cervical Intraepithelial Neoplasia: A Population-Based Study. Infectious Diseases Society for Obstetrics and Gynecology Annual Meeting, Big Sky, MT, August 9, 2019. *Oral Presentation*.
3. McKee KS, Bassis C, Carter K, Bell J, Young VB. The Maternal Vaginal Microbiota in Pregnancy: Characterization and Association with Birth Outcomes. Society for Epidemiologic Research Annual Meeting, Minneapolis, MN, June 17, 2019.
4. McKee KS, Admon LK, Winkelman TNA, Hall, DaltonVK, Zivin K. National Trends in Mental Health Conditions and Outcomes Among Delivering Women, United States 2003-2014. Academy Health Annual Meeting, Seattle, WA, June 24, 2018. *Poster Presentation*.

5. Carter K, Bassis C, McKee KS, Bullock K, Eastman A, Young V, Bell J. The Impact of Tampon Use on the Vaginal Microbiota Across Four Menstrual Cycles, Infectious Diseases Society for Obstetrics and Gynecology Annual Meeting, Philadelphia, PA, August 3, 2018. *Oral presentation.*
6. Carter K, McKee KS, Bassis C, Bell J, Young V, Reed B, Ruffin M, The Vaginal Microbiome, High-risk Human Papillomavirus Infection, and Cervical Intraepithelial Neoplasia in a Population-Based Study. Society for Epidemiologic Research Annual Meeting, Baltimore, MD, June 20, 2018. *Poster Presentation. \*Best student award.*
7. Nichols L, Dejonckheere M, McKee KS, Chang T. Beliefs and Myths about Exercise during Pregnancy among Pregnant Youth: A Qualitative Study. Society for Adolescent Health and Medicine Annual Meeting, Seattle, WA, March 14, 2018. *Poster Presentation.*
8. McKee KS, Plegue MA, Sen A, Moniz M, Davis M, Richardson CR, Chang T. Predictors of three-years postpartum BMI change among young women. American Public Health Association Annual Meeting, Denver, CO, November 2, 2016. *Poster Presentation.*
9. Wu J, McKee K, McKee M, Meade M, Plegue M, Sen A. Contraceptive use among heterosexual women with physical and sensory disabilities in the United States. American Public Health Association Annual Meeting, Denver, CO, November 1, 2016. *Oral Presentation.*
10. McKee KS, Seplaki C, Fisher S, Groth S, Fernandez ID. Cumulative physiologic dysfunction and pregnancy: characterization and association with birth outcomes. Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting, Miami, FL, June 20, 2016. *Poster Presentation.*
11. McKee KS, Seplaki C, Fisher S, Groth S, Fernandez ID. Depression, cumulative physiologic dysfunction and birth weight. Society for Epidemiologic Research Annual Meeting, Miami, FL, June 21, 2016. *Poster Presentation.*
12. McKee M, McKee KS, Winters P, Sutter E, Pearson T. Are higher educational attainment and income cardiovascular protective for deaf American Sign Language Users? AHA EPI/NPAM 2012 Scientific Sessions, San Diego, CA, March 14, 2012. *Poster Presentation.*
13. McKee, M, McKee K, Paasche-Orlow M, Fiscella K, Zazove P, Pearson T. Preliminary assessment of health literacy among deaf American Sign Language users. 2012 Science of Eliminating Health Disparities Summit, National Harbor, MD, December 17, 2012. *Poster Presentation.*
14. Dozier A, McKee KS. State Workplace Breastfeeding laws and breastfeeding duration among a nationally representative sample of children. U.S. Breastfeeding Summit, Washington, DC, June 29, 2011. *Oral Presentation.*

15. McKee KS, Yoo BK, Thevenet Morrison K, Dozier A, Szilagyi P. Is expanded SCHIP income eligibility associated with influenza immunization receipt of near-poor children? APHA Annual Meeting, Washington, DC, October 31, 2011. *Oral Presentation.*

**Local Presentations:**

1. McKee KS. National Trends in Mental Health Conditions and Outcomes Among Delivering Women, United States 2003-2015. Michigan Family Medicine Research Day, Howell, MI, May 2019. *\*Overall Best faculty oral presentation award.*
2. McKee KS. Of Moms and Microbes. MAC-EPID Seminar, University of Michigan, March 15, 2019.
3. McKee KS. Validation of Maternal Vaginal Microbiota Signatures in Pregnancy: The ECHO Vaginal Microbiome Collaboration Project, CHARM Investigator Meeting, Michigan State University, East Lansing, MI, September 28, 2018.
4. Research Overview and Future Directions. Program on Women's Healthcare Effectiveness Research, University of Michigan, Ann Arbor, MI, April 14, 2018.
5. McKee KS. Vaginal Microbiome: What We Know and Where We are Going. Epidemiology and Biostatistics Grand Rounds, Michigan State University, East Lansing, MI, February 8, 2018.
6. McKee KS. Epidemiology Principles and Study Designs. Family Medicine Evidence Based Medicine Seminar, Ann Arbor, MI, July 10, 2017.
7. McKee KS. Environmental exposure history and vulvodynia risk: Unrecognized Risk Factors. Michigan Family Medicine Research Day, Howell, MI, May 25, 2017.
8. McKee KS. USPTF Recommendations and Epidemiology Overview. Family Medicine Evidence Based Medicine Seminar, Ann Arbor, MI, July 10, 2016.
9. McKee KS. Predictors of three-years postpartum BMI change among young women Michigan Family Medicine Research Day, Howell, MI, May 26, 2016.
10. McKee KS. Vaginal Microbiome, Stress, and Preterm Birth: Eliciting Feedback for a Grant Proposal, Family Medicine Research Meeting, Ann Arbor, MI, January 5, 2016.
11. McKee KS. Cumulative physiologic dysfunction and pregnancy: characterization, association with birth outcomes, and Future Directions. Family Medicine Research Meeting, Ann Arbor, MI, June 6, 2015.
12. McKee KS. Cumulative physiologic dysfunction and pregnancy: characterization and association with birth outcomes. Department of Public Health Science, February 28, 2015.

13. McKee KS. Approaches to Mediation Analyses: Unpacking the Black Box. Epidemiology Nuts and Bolts Session, Department of Community and Preventive Medicine, University of Rochester, Rochester, NY, March 30, 2012.
14. McKee KS. Measuring Health and Disease: An Introduction to Epidemiology. PH 101 lecture, University of Rochester, Rochester, NY, September 18, 2010.
15. McKee KS. Health Disparities, Health Inequities, and Health Inequalities. PH 101 lecture, University of Rochester, Rochester, NY, September 27, 2010.
16. McKee KS. Approaches to Mediation Analyses: Unpacking the Black Box. Epidemiology Nuts and Bolts Session, Department of Community and Preventive Medicine, University of Rochester, Rochester, NY, March 30, 2012.

**Journal Reviewer:**

2018 - present	<i>J Maternal and Child Health</i>
2017-present	<i>PLOS ONE</i>
2017- present	<i>Scientific Reports-Nature</i>

**Service:**

2019	Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting Planning Committee
2018	Undergraduate Research Opportunity Program Biomedical Sciences Summer Internship Program, Selection Committee Reviewer
2017 - present	Program on Women's Healthcare Effectiveness Research, Member
2017- present	Society for Pediatric and Perinatal Epidemiologic Research, Annual Meeting Abstract Reviewer
2011- present	American Public Health Association, Maternal and Child Health Section, Annual Meeting Abstract Reviewer
2011 - 2012	Saward-Berg Lecture, University of Rochester, Graduate Student Co-organizer
2010 - 2011	Public Health Grand Rounds, Epidemiology Committee Liaison, University of Rochester



2007 - 2008 Graduate Student Representative to the Graduate Faculty Meeting,  
University of Rochester

**Teaching Responsibilities:**

*University of Michigan*

2018-present	<b>Undergraduate student, School of Public Health</b> Research Mentor 1 student
2017-2018	<b>Master's Student, School of Public Health</b> Research Mentor 1 student
2017- 2018	<b>Undergraduate Students</b> Research Mentor 2 students
Summer 2017	<b>Biomedical Sciences Summer Internship Program</b> Research Mentor 1 undergraduate student
Fall 2016- Spring 2017	<b>Undergraduate Research Opportunity Program</b> Mentor 3 students
July 2016, July 2017	<b>Family Medicine Residency Program; Evidence-Based Medicine (EBM)</b> Co-lead one session (highly rated; reviews provided)

*University of Rochester School of Medicine and Dentistry*

Fall 2010	<b>Public Health 101 (PH 101)</b> Teaching Fellow; Lecturer 100 Students (Undergraduate students) 60 Contact Hours/ 80 Preparation hours per semester
Fall 2009	<b>Introduction to Epidemiology (PM 415)</b> Teaching Assistant 60 Students (MPH/PhD students) 45 Contact Hours/ 25 Preparation hours per semester
2012-2013	<b>Independent Study in Epidemiology</b> 2 undergraduate students

45 Contact hours per semester

**Professional Societies**

2010 - Present	Member, Society for Epidemiologic Research
2010 - Present	Member, American Public Health Association
2016 - Present	Member, Society for Pediatric and Perinatal Epidemiologic Research
2009 - 2012	Student Member, American Heart Association, Epidemiology Section