

Jenna E. Coalson, PhD, MPH

Eck Institute for Global Health, 919 Flanner Hall, Notre Dame, Indiana, 46556, USA

Email: jcoalson@gmail.com

Phone: +1 (574) 631-3811

Twitter: @JE_Coalson

Webpage: <https://jennacoalson.com>

EDUCATION

- 2015** **PhD, Epidemiologic Sciences**
Department of Epidemiology, University of Michigan, Ann Arbor, Michigan
Chair: Mark L. Wilson, Sc.D.
Dissertation: “Silent” malaria: Defining the infectious reservoirs of *Plasmodium falciparum* in communities of southern Malawi
- 2011** **MPH, International Health Epidemiology**
Department of Epidemiology, University of Michigan, Ann Arbor, Michigan
- 2007** **BA, Human Biology**
Stanford University, Stanford, California
Concentration: The biological and social aspects of infectious disease
Phi Beta Kappa Honors Society

PROFESSIONAL EXPERIENCE

- 2019 – pres.** **Assistant Professor of the Practice**, University of Notre Dame, Notre Dame, Indiana
Master of Science in Global Health, Eck Institute for Global Health
- 2016 – 2019** **Postdoctoral Fellow**, University of Arizona, Tucson, Arizona
Center for Insect Science and Department of Epidemiology and Biostatistics
Postdoctoral Excellence in Research and Teaching (PERT) Fellowship
- 2015 – 2016** **Postdoctoral Researcher**, University of Michigan, Ann Arbor, Michigan
Department of Epidemiology
- 2013 – pres.** **Epidemiologist**, EpidStat Institute, Ann Arbor, Michigan
- 2007 – 2009** **Scientist**, Exponent, Inc, Menlo Park, California

GRANTS AND FELLOWSHIPS

Federal grants:

- 2016 – 2019** **NIH, NIGMS** K12 GM000708 (PI: Strausfeld)

Postdoctoral Excellence in Research and Teaching
Role: Postdoctoral Scholar

2017 – 2024 **NIH, NIAID** 2U19AI089683-08 (PI: Laufer)
Intransigence of malaria in Malawi: Understanding hidden reservoirs, successful vectors, and prevention failures
International Centers of Excellence for Malaria Research – Malawi
Role:

2017-2020 **CDC** 200-2017-93139 (PI: Walker, Ernst)
Impacts of targeted larviciding and ULV adulticiding on the vectorial capacity of the Zika vector, *Aedes aegypti*
Role: Research team

Institutional grants:

2013 Rackham International Research Award (\$7000), University of Michigan, Ann Arbor, MI

2013 African Studies Initiative/SAIO Grant (\$3000), University of Michigan, Ann Arbor, MI

2012 Global Public Health Pre-Dissertation Award (\$5000), University of Michigan, Ann Arbor, MI

PUBLICATIONS

Journal Articles:

NCBI Bibliography:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/1heseriTD'Tg5z/bibliography/49920964/public/?sort=date&direction=ascending>

2020 1. **Coalson JE**, Santos EM, Little AC, Anderson EJ, Stroupe N, Agawo M, Hayden M, Munga S, Ernst KC. Insufficient ratio of long-lasting insecticidal nets to household members limited universal usage in Western Kenya: A 2015 cross-sectional study. *American Journal of Tropical Medicine and Hygiene*. 2020 [*In press*]

2019 2. Andronescu LR, Buchwald AG, **Coalson JE**, Cohee L, Bauleni A, Walldorf JA, Kandangwe C, Mzilahowa T, Taylor TE, Mathanga DP, Laufer MK. Net age, but not integrity, may be associated with decreased protection against *Plasmodium falciparum* infection in southern Malawi. *Malaria Journal*. 2019 Sep 24;18(1):329.

3. Santos EM, **Coalson JE**, Jacobs ET, Klimentidis YC, Munga S, Agawo M, Anderson E, Stroupe N, Ernst KC. Bed net care practices and associated factors in western Kenya. *Malaria Journal*. 2019 Aug 14;18(1):274.

4. **Coalson JE**, Cohee LM, Walldorf JA, Bauleni A, Mathanga DP, Taylor TE, Wilson ML, Laufer MK. Challenges in treatment for fever among school-age children and adults in Malawi. *American Journal of Tropical Medicine and Hygiene*. 2019 Feb;100(2):287-295.

- 2018 5. **Coalson JE**, Cohee LM, Buchwald AG, Nyambalo A, Kubale J, Seydel KB, Mathanga D, Taylor TE, Laufer MK, Wilson ML. Simulation models predict that school-age children are responsible for most human-to-mosquito *Plasmodium falciparum* transmission in southern Malawi. *Malaria Journal*. 2018 Apr 3;17(1):147.
- 2017 6. Buchwald AG, **Coalson JE**, Cohee LM, Walldorf JA, Chimbiya N, Bauleni A, Nkanaunena K, Ngwira A, Sorkin JD, Mathanga DP, Taylor TE, Laufer MK. Insecticide-treated net effectiveness at preventing *Plasmodium falciparum* infection varies by age and season. *Malaria Journal*. 2017 Jan 17;16(1):32.
7. Pastula ST, Hackett J, **Coalson J**, Jiang X, Villafana T, Ambrose C, Fryzek J. Hospitalizations for respiratory syncytial virus (RSV) among adults in the United States, 1997 – 2012. *Open Forum Infectious Diseases*. 2017 Jan 9;4(1):ofw270.
- 2016 8. **Coalson JE**, Walldorf JA, Cohee LM, Ismail MD, Mathanga D, Cordy RJ, Marti M, Taylor TE, Seydel KB, Laufer MK, Wilson ML. High prevalence of *Plasmodium falciparum* gametocyte infections in school-age children using sensitive molecular detection: Patterns and predictors of risk from a cross-sectional study in southern Malawi. *Malaria Journal*. 2016 Nov 4;15(1):527.
9. Doucette A, Jiang X, Fryzek J, **Coalson J**, McLaurin K, Ambrose CS. Trends in respiratory syncytial virus and bronchiolitis hospitalization rates in high-risk infants in a United States nationally representative database, 1997 – 2012. *PLoS One*. 2016 Apr 6;11(4):e0152208.
10. Buchwald AG, Walldorf JA, Cohee LM, **Coalson JE**, Chimbiya N, Bauleni A, Nkanaunena K, Ngwira A, Kapito-Tembo A, Mathanga DP, Taylor TE, Laufer MK. Bed net use among school-aged children after a universal bed net campaign in Malawi. *Malaria Journal*. 2016 Feb 29;15(1):127.
- 2015 11. Walldorf JA, Cohee LM, **Coalson JE**, Bauleni A, Nkanaunena K, Kapito-Tembo A, Seydel KB, Ali D, Mathanga D, Taylor TE, Valim C, Laufer MK. School-age children are a reservoir of malaria infection in Malawi. *PLoS One*. 2015 Jul 24;10(7):e0134061.
- 2010 12. Morimoto L, **Coalson J**, Mowat F, O'Malley C. Factors affecting receipt of chemotherapy in women with breast cancer. *International Journal of Women's Health*. 2010 Aug 9;2:107-22.
13. Yong M, Schoonen WM, Li L, Kanas G, **Coalson J**, Mowat F, Fryzek J, Kaye JA. Epidemiology of paediatric immune thrombocytopenic purpura in the General Practice Research Database. *British Journal of Haematology*. 2010 Jun;149(6):855-64.
14. Fordyce TA, Morimoto LM, **Coalson J**, Kelsh MA, Mezei G. Neck injuries among electric utility workers, 1995 – 2007. *Journal of Occupational and Environmental Medicine*. 2010 Apr;52(4):441-9.
- 2009 15. Schoonen WM, Kucera G, **Coalson J**, Li L, Rutstein M, Mowat F, Fryzek J, Kaye JA. Epidemiology of immune thrombocytopenic purpura in the General Practice Research Database. *British Journal of Haematology*. 2009 Apr;145(2):235-44.

CONFERENCE ACTIVITY

- 2019**
1. Ernst KC [**Coalson JE** - uncredited presenter]. Human influences on *Aedes aegypti* abundance in desert environments. American Society of Tropical Medicine and Hygiene 68th Annual Meeting; 2019 Nov 20-24; National Harbor, MD. Presentation.
 2. **Coalson J**, Anders EJ, Garcia VM, Santos E, Richard D, Luzingu J, Romine J, Little A, Okello A, Dominguez B, Arora M, Arnbrister J, Ernst K. The impact of extreme rainfall events on the incidence of mosquito-borne diseases: A systematic literature review. American Society of Tropical Medicine and Hygiene 68th Annual Meeting; 2019 Nov 20-24; National Harbor, MD. Poster.
- 2018**
3. **Coalson JE**, Richard DM, Weitemier T, Damian D, Townsend J, Smith K, Ernst KC. Landcover and census-derived demographic data predict *Aedes aegypti* abundance in Maricopa County, Arizona. American Geophysical Union Fall Meeting; 2018 Dec 10-14; Washington, D.C. Poster.
 4. **Coalson JE**, Santos EM, Stroupe N, Agawo M, Munga S, Ernst KC. Progress toward universal bed net coverage in western Kenya has not ensured universal usage, particularly among school-age children. American Society of Tropical Medicine and Hygiene 67th Annual Meeting; 2018 Oct 28-Nov 1; New Orleans, LA. Poster.
 5. Santos EM, **Coalson JE**, Stroupe N, Ernst KC, Agawo M, Munga S. Exploration of factors associated with bed net maintenance in Kenya using a novel bed net care adherence score. American Society of Tropical Medicine and Hygiene 67th Annual Meeting; 2018 Oct 28-Nov 1; New Orleans, LA. Poster.
 6. Anderson EJ, **Coalson JE**, Agawo M, Munga S, Ernst KC. Factors related to LLIN use behavior during travel in western Kenya. American Society of Tropical Medicine and Hygiene 67th Annual Meeting; 2018 Oct 28-Nov 1; New Orleans, LA. Poster.
 7. Andronescu LR, Buchwald AG, **Coalson JE**, Cohee LM, Bauleni A, Nkanaunena K, Ngwira A, Mzomera A, Mathanga DP, Laufer MK. Net integrity does not predict *Plasmodium falciparum* infection among ITN users in southern Malawi, 2012-2014. American Society of Tropical Medicine and Hygiene 67th Annual Meeting; 2018 Oct 28-Nov 1; New Orleans, LA. Poster.
 8. Little AC, **Coalson JE**, Santos EM, Agawo M, Munga S, Ernst KC. Gaps in universal insecticide-treated net coverage in western Kenya. American Society of Tropical Medicine and Hygiene 67th Annual Meeting; 2018 Oct 28-Nov 1; New Orleans, LA. Poster.
 9. Buchwald AG, **Coalson JE**, Cohee LM, Wilson ML, Hungerford LL, Taylor TE, Laufer MK. School-based antimalarial interventions efficiently reduce community-level *Plasmodium falciparum* prevalence in a high-transmission setting: A mathematical modeling study. American Society of Tropical Medicine and Hygiene 67th Annual Meeting; 2018 Oct 28-Nov 1; New Orleans, LA. Presentation.
 10. **Coalson JE**, Richard DM, Damian D, Townsend J, Smith K, Ernst KC. Human-

environment interactions impact *Aedes aegypti* abundance in an urban desert setting. 18th International Congress on Infectious Diseases; 2018 Mar 1-4; Buenos Aires, Argentina. Presentation.

- 2017** 11. **Coalson JE**, Frechtling D, Cohee LM, Kadangwe C, Seydel K, Nyambalo A, Valim C, Taylor TE, Mathanga DP, Bauleni A, Pike A, Walker E, Mzilahowa T, Laufer MK, Wilson ML. Human, parasite and environmental factors associated with *Anopheles* mosquito heterogeneity among households of southern Malawi. American Society of Tropical Medicine and Hygiene 66th Annual Meeting; 2017 Nov 5-9; Baltimore, MD. Poster.
12. Richard D, **Coalson JE**, Ernst K, Damian D, Townsend J, Smith K. Distribution of the Zika virus vector *Aedes aegypti* in an urban desert environment. American Society of Tropical Medicine and Hygiene 66th Annual Meeting; 2017 Nov 5-9; Baltimore, MD. Poster.
13. Opuku-Agyeman A, Mbambo G, Joshi S, Adams M, **Coalson JE**, Wilson ML, Taylor TE, Mathanga DP, Laufer MK, Cohee LM. Prevalence and outcomes of *P. falciparum* infections detected only by ultra-sensitive PCR in school children in southern Malawi. American Society of Tropical Medicine and Hygiene 66th Annual Meeting; 2017 Nov 5-9; Baltimore, MD. Presentation
14. Pike A, Kadangwe C, **Coalson JE**, Cohee LM, Bauleni A, Valim C, Taylor TE, Mathanga DP, Kapito-Tembo A, Wilson ML, Walker E, Laufer MK, Mzilahowa T. Distribution, infection status and blood-feeding behavior of *Anopheles* spp. mosquitoes in southern Malawi. American Society of Tropical Medicine and Hygiene 66th Annual Meeting; 2017 Nov 5-9; Baltimore, MD. Poster.
- 2016** 15. **Coalson JE**, Cohee LM, Buchwald AG, Seydel K, Taylor TE, Laufer MK, Wilson ML. School-age children are disproportionately important *Plasmodium falciparum* transmission reservoirs in southern Malawi. American Society of Tropical Medicine and Hygiene 65th Annual Meeting; 2016 Nov 13-17; Atlanta, GA. Poster.
16. Cohee LM, Valim C, **Coalson JE**, DeRoo SS, Chilombe M, Seydel K, Mathanga D, Taylor TE, Wilson ML, Laufer MK. Evidence to optimize the design of school-based interventions against malaria. American Society of Tropical Medicine and Hygiene 65th Annual Meeting; 2016 Nov 13-17; Atlanta, GA. Presentation.
17. Buchwald AG, **Coalson JE**, Cohee LM, Walldorf JA, Chimbiya N, Bauleni A, Nkanaunena K, Ngwira A, Kapito-Temo A, Sorkin JD, Mathanga D, Taylor TE, Laufer MK. Challenges of measuring ITN efficacy in high transmission settings: Age, season and detection methods. American Society of Tropical Medicine and Hygiene 65th Annual Meeting; 2016 Nov 13-17; Atlanta, GA. Poster.
18. Yimgang DP, Buchwald AG, **Coalson JE**, Cohee LM, Walldorf JA, Chimbiya N, Bauleni A, Nkanaunena K, Ngwira A, Kapito-Tembo A, Mathanga D, Taylor TE, Laufer MK. The relationship between anemia and malaria infection among children under five years in Malawi. American Society of Tropical Medicine and Hygiene 65th Annual Meeting; 2016 Nov 13-17; Atlanta, GA. Poster.

19. Pastula S, Hackett J, **Coalson JE**, Jiang X, Villafana T, Fryzek JP, Ambrose CS. Burden of respiratory syncytial virus disease among adults in the United States from 1997 to 2012. IDWeek 2016; 2016 Oct 26-30; New Orleans, LA. Poster.
- 2015** 20. **Coalson JE**, Cohee LM, Walldorf JA, Nkanaunena K, Dear NF, Kapito-Tembo A, Seydel K, Mathanga DP, Taylor TE, Laufer MK, Wilson ML. Antimalarial treatment-seeking and use in southern Malawi: Challenges to interruption of *Plasmodium* transmission. American Society of Tropical Medicine and Hygiene 64th Annual Meeting; 2015 Oct 25-29; Philadelphia, PA. Presentation.
- 2014** 21. **Coalson JE**, Walldorf JA, Cohee LM, Marti M, Joice R, Chimbiya N, Seydel K, Ismail MD, Mathanga D, Kapito-Tembo A, Taylor TE, Laufer MK, Wilson ML. Submicroscopic gametocyte carriage: Prevalence and predictors across two seasons and three districts in southern Malawi. American Society of Tropical Medicine and Hygiene 63rd Annual Meeting; 2014 Nov 2-6; New Orleans, LA. Presentation.
22. McNitt SA, Vareta J, **Coalson J**, Cohee L, Walldorf J, Laufer M, Taylor T, Nkhoma S, Seydel K. Effect of infection multiplicity on gametocytemia in southern Malawi. American Society of Tropical Medicine and Hygiene 63rd Annual Meeting; 2014 Nov 2-6; New Orleans, LA. Poster.
23. Walldorf JA, **Coalson JE**, Bauleni A, Nkanaunena K, Cohee LM, Valim C, Chimbiya N, Fiore J, Kapito-Tembo A, Seydel K, Mathanga D, Taylor TE, Laufer MK. Utility of PCR-based surveillance methods relative to age in rainy and dry seasons in southern Malawi. American Society of Tropical Medicine and Hygiene 63rd Annual Meeting; 2014 Nov 2-6; New Orleans, LA. Presentation.
24. Cohee LM, Walldorf JA, **Coalson JE**, Chimbiya N, Nkanaunena K, Bauleni A, Fiore J, Kapito-Tembo A, Mathanga D, Taylor T, Laufer MK. Access to malaria control interventions among school-age children in Malawi. American Society of Tropical Medicine and Hygiene 63rd Annual Meeting; 2014 Nov 2-6; New Orleans, LA. Poster.
25. **Coalson JE**, Walldorf JA, Marti MJ, Joice R, Seydel KB, Ismail MD, Mathanga DA, Kapito-Tembo AP, Taylor TE, Laufer MK, Wilson ML. Submicroscopic gametocytemia and malaria in Malawi: Molecular identification and implications for transmission. 16th International Congress on Infectious Diseases; 2014 Apr 2-5; Cape Town, South Africa. Poster.
26. **Coalson JE**, Walldorf JA, Marti MJ, Joice R, Seydel KB, Ismail MD, Mathanga DP, Kapito-Tembo AP, Taylor TE, Laufer MK, Wilson ML. Submicroscopic gametocytemia and malaria in Malawi: Molecular identification and implications for transmission. American Society of Tropical Medicine and Hygiene 62nd Annual Meeting; 2013 Nov 13-17; Washington, DC. Poster.
- 2013** 27. Walldorf JA, Cohee LM, Fiore J, Bauleni A, **Coalson JE**, Phiri T, Mathanga D, Valim C, Kapito-Tembo AP, Taylor TE, Laufer MK. Reservoirs of asymptomatic malaria in Malawi: Results of two cross-sectional studies. American Society of Tropical Medicine and Hygiene 62nd Annual Meeting; 2013 Nov 13-17; Washington, DC. Poster.

- 2012** 28. Smith, MA, Yadav P, **Coalson J**, Wilson ML. Allocative efficiency modeling of malaria treatment and prevention: Analysis of interactions to improve interventions. American Society of Tropical Medicine and Hygiene 61st Annual Meeting; 2012 Nov 11-15; Atlanta, GA. Presentation.
- 2011** 29. **Coalson J**, Asante KP, Boamah EA, Manu G, Owusu-Agyei S. Knowledge and perceptions of malaria prevention methods among pregnant women in central Ghana. Michigan Public Health Assembly, Epidemiology Section. Michigan Epidemiology Conference; 2011 Apr 1; Ann Arbor, MI. Poster.

CAMPUS/DEPARTMENTAL TALKS

- 2016** “Silent” malaria: Defining the infectious reservoirs of *Plasmodium falciparum* in communities of southern Malawi. Epidemiology and Biostatistics Department Seminar, 2016 Nov, University of Arizona, Tucson, AZ.

TEACHING EXPERIENCE

Instructor of record:

University of Notre Dame, Eck Institute for Global Health

- 2020** Capstone Research Seminar. Master of Science in Global Health (MSGH) students.
- 2019** Fundamentals of Epidemiology. MSGH students.
Global Health Journal Club. MSGH students.

Pima Community College, Biology Department

- 2018** Genetics, Biotechnology and Human Society. Undergraduate/ Associate’s degree students.

University of Michigan School of Public Health, Department of Epidemiology

- 2016** Field Methods in Developing Countries. Master of Public Health (MPH) students.

Short course instructor:

University of the West Indies

- 2018** Infectious Disease Epidemiology. 2018 Mar 12-16. MPH students.

Teaching assistant:

University of Michigan School of Public Health, Department of Epidemiology

- 2014** Introduction to Epidemiology. MPH students.
- 2011 – 2012** Principles and Methods of Epidemiology. MPH students.
- 2011 – 2012** Fundamental of Epidemiology. Summer session.

Tutor:

University of Michigan School of Public Health, Department of Epidemiology

- 2011 – 2012** Department biostatistics tutor. MPH students.

SERVICE TO PROFESSION

Manuscript reviewer (*ad hoc*): BMC Public Health, PLoS One, PLoS Neglected Tropical Diseases, American Journal of Medicine and Public Health, Health Education and Behavior

DEPARTMENTAL/UNIVERSITY SERVICE

- 2020 Team advisor, Global Health Case Competition.
- 2016 – 2019 Executive Board Member, University of Arizona Postdoctoral Association.
- 2017 Travel grant judge. Graduate and Professional Student Council, University of Arizona.
- 2017 Panelist. “How to find and apply for postdoc fellowships. Graduate Center, University of Arizona.
- 2013 – 2014 Student Representative. Epidemiology Doctoral Committee, University of Michigan.
- 2012 Co-Chair. Epidemiology Doctoral Student Organization, University of Michigan.
- 2010 – 2011 Academic Chair. Epidemiology Student Organization, University of Michigan.

COMMUNITY OUTREACH

- 2014 – pres. Epidemiology/malaria answer contributor. www.Quora.com
- 2017 Panelist. “Meet a Scientist.” St. Michael’s Primary School, Tucson, AZ.

STUDENT MENTORING

University of Notre Dame

- 2019 – 2020 Alyssa Fowlds, Joseph Miller. MSGH capstone supervisor. Reemergence of *Schistosoma japonicum* in Sichuan, China.

Pima Community College

- 2018 Thomas DeStefano. Undergraduate Research. Systematic literature review: Effects of flooding on mosquito-borne disease transmission.
- 2018 Marc Bulau. Undergraduate Research. Systematic literature review: Factors affecting human-to-mosquito *Plasmodium* infectivity in blood-feeding experiments.

University of Arizona

- 2017 – 2019 Ashley Little. Undergraduate Research. “Malaria prevention strategies in western Kenya.”
- 2017 – 2018 Danielle Richard. Undergraduate Honors Thesis. “Distribution of the Zika virus vector *Aedes aegypti* in an urban desert environment.”
One conference poster (ASTMH 2017).

CAREER DEVELOPMENT

- 2018** Meta-Analysis Training Program. Center for Health Outcomes and Pharmacoeconomic Research, University of Arizona College of Pharmacy. 2018 Jun 18-20; University of Arizona, Tucson, AZ.
- 2017** Process Oriented Guided Inquiry Learning (POGIL) Training Workshop. The POGIL Project. 2017 Oct 2-3; University of Arizona, Tucson, AZ.
- 2017** NCAR/CDC Workshop on Weather, Climate and Health. National Center for Atmospheric Research, Centers for Disease Control and Prevention. 2017 Jul 17-20; Boulder, CO.
- 2017** Pedagogy Workshop. Postdoctoral Excellence in Research and Teaching (PERT), Edward E. Prather. 2017 Feb 23-24; University of Arizona, Tucson, AZ.

PROFESSIONAL MEMBERSHIPS

- 2012 – pres.** American Society of Tropical Medicine and Hygiene
- 2018 – 2019** American Geophysical Union