

Jennifer R Head

+1 513 505 3092 | jrhead@umich.edu | [jrhead](#) | [JenniferR_Head](#)

Education

University of California, Berkeley

Ph.D. in Epidemiology

Berkeley, California

May, 2022

Emory University

MPH in Global Environmental Health

Atlanta, Georgia

2016

Graduate certificates in WASH (water, sanitation, hygiene) & complex humanitarian emergencies

Washington University in St. Louis

B.S. in Chemical engineering with minors in Spanish and environmental engineering

St. Louis, Missouri

2013

GPA: 3.98/4.0

Research appointments

University of Michigan | Department of Epidemiology

Ann Arbor, MI

University of Michigan | Institute of Global Change Biology

John G. Searle Assistant Professor

Aug, 2023 - present

University of California, Berkeley | Division of Environmental Health Sciences

Berkeley, CA

Assistant Researcher, Transmission dynamics of emerging infectious diseases

2022 - 2023

University of California, Berkeley | Division of Epidemiology

Berkeley, CA

Graduate Student Researcher, Transmission dynamics of emerging infectious diseases

2018 - 2022

Centers for Disease Control and Prevention | Epidemiology, Informatics, & Surveillance Branch

Atlanta, GA

ASPPH Allen Rosenfield Fellow, Global surveillance of emerging and high-consequence pathogens

2016 - 2018

Save the Children, CARE, Catholic Relief Services

Lao PDR & Ethiopia

Consultant, Effect of nutrition and WASH programming on child growth

2016 - 2022

Emory University | Department of Environmental Health

Atlanta, GA

Graduate Research Assistant, Movement of intermediate host populations

2014 - 2016

Centers for Disease Control and Prevention | Emergency Response and Recovery Branch

Atlanta, GA

Assistant, Healthcare access during the 2014-2016 Ebola Outbreak

2014 - 2016

Fulbright Fellowship Program

Ethiopia

Research Scholar, Development of local technologies for fortification of foods with micronutrients

2013 - 2014

Washington University in St. Louis | Dept. of Energy, Environmental & Chemical Engineering

St. Louis, MO

Research Assistant, Application of nanotechnology for cancer pharmaceuticals

2010 - 2013

Grants

CURRENT

Estimating and understanding implications of population susceptibility to coccidioidomycosis, an emerging infectious disease

\$3,553,159

NIH R01AI189698

June 2026 - May 2031

Role: PI

Establishing the role of peridomestic mammals in maintaining H5N1 among poultry and promoting biosecurity at the wildlife-poultry interface

\$1,096,690

USDA

Feb 2026 - Jan 2029

Role: PI

- Understanding the influence of climate and other environmental factors on blastomycosis incidence and seasonality in northern Great Lakes states** \$419,274
 NIH R21AI188113 July 2025 - June 2027
 Role: PI
- Modelled estimation of population immunity for coccidioidomycosis and the role of immunologically naive populations in the shifting epidemiology of coccidioidomycosis in California** \$577,885
 NIH K01AI173529 Aug 2023 - July 2028
 Role: PI
- Determining the effects of ambient dust exposure and extreme dust events on coccidioidomycosis in Arizona** \$420,228
 NIH R21AI192808 Aug 2023 - July 2028
 Role: co-I (PI: Heaney)
- Quantifying the benefit and feasibility of greening as a strategy for carbon sequestration, extreme event adaptation, and disease reduction** \$1,000,000
 University of Michigan Biosciences Initiative Fall 2024 - 2026
 Role: mPI (Head, Ombadi)
- Using massive, multi-regional EHR data to estimate the impacts of climate change on fungal disease epidemiology in the U.S.** \$3,292,252
 NIH R01AI176770 June, 2023 - May 2028
 Role: co-I (PI: White, Hoffman, Remais)
- Michigan-Public Health Integrated Center for Outbreak Analytics and Modeling** \$6,992,210
 CDC Oct 2023 - Sept 2028
 Role: co-I (PI: Eisenberg, Martin)
- PREVIOUS GRANTS**
- Climate Sensitivity of Coccidioidomycosis: Investigating Meteorological Precursors in Arizona** \$19,616
 CLimate and Health Coordinating Research Center Nov 2025 - April 2026
 Role: mPI (Head, Heaney)
- Climate change and blastomycosis incidence in northern Great Lakes states** \$24,994
 University of Michigan M-LEEd center April 2024 - March 2025
 Role: PI
- Integrating epidemiologic and environmental approaches to understand and predict Coccidioides exposure and coccidioidomycosis emergence** \$3,750,012
 NIH R01AI148336 Dec 2019 - Nov 2024
 Role: co-I (PI: Taylor, Remais)
- Valley fever incidence, spread and future expansion in Texas** \$262,227
 NSF EAGER 2024-2026
 Role: co-I (PI: Bhattachan)
- Identification of climate and health messages that resonate across the political spectrum** \$10,000
 UMichigan OVPR Bold Challenges Pollination Awards: Climate and Health Feb 2025 - Aug 2025
 Role: PI
- Elucidating the role of rodent hosts in the lifecycle of Coccidioides** \$125,758
 NIH F31AI152430 Aug 2020 - July 2022
 Role: PI
- Social Contact patterns among Bay Area Households with children: a serial cross-sectional survey** \$10,000
 MIDAS COVID-19 Modeling Urgent Grant Jan 2020 - June 2021
 Role: equivalent to co-PI but not eligible in 2020 (PI: Remais)
 Wrote proposal, supported by research advisor

California Department of Public Health

Role: equivalent to PI but not eligible in 2020 (PI: Remais)

Wrote proposal, supported by research advisor

Peer reviewed publications (n = 51)

ORCID: 0000-0003-1449-4171

Star(*) indicates a trainee/student first author

1. **Head, JR**, Camponuri SK, Weaver AK, Montoya L, Lee E, Radosevich M, Jones I, Wagner R, Bhattachan A, Campbell G, Keeney N, Collender PA, Heaney AK, Couper L, Colvin KA, Larios L, Bean WT, Taylor JW, Remais JV. (2024). Small mammals and their burrows shape the distribution of *Coccidioides* in soils: evidence from a long-term ecological experiment in the Carrizo Plain National Monument, California, USA. **Ecology**. *Accepted*.
2. Couper LI*, Gonzalez DJX, Camponuri SK, Weaver AK, Sondermeyer Cooksey G, Vugia D, Jain S, Taylor J, Balmes J, Eisen EA, Remias JV, **Head JR**. (2025). Oil and gas well development and coccidioidomycosis risk in California: A case-crossover study. **Lancet Planetary Health**. *Accepted*.
3. **Head JR**, Brouwer AF, Rajan A, Scherer M, Williams M, Balmes J, Thompson GR, Ampel ND, Lucas KD, (2026). *Coccidioides* skin test performance and patterns of prior immunity to coccidioidomycosis among a large population of males entering California state prisons, 2015–2024: a population-based modelling study. **Lancet Regional Health Americas** 58:101461.
4. Kruger S*, Ruberto I, Williamson T, Remais JV, Heaney AK, **Head JR**, (2026). Regional increases in coccidioidomycosis incidence—Arizona, 2005–2022. **Morbidity and Mortality Weekly Report** 75(6).
5. Hermann JN*, Kruger SE*, Wodniak N, Holland J, Janosick V, Sanchez A, Zuniga-Moya JC, Brucker D, Torres B, Melo KM, Oliveros E, Kuran R, D’Assumpcao C, Johnson RH, Van Pelt RS, Bhattachan B, Wagner AL, **Head JR** (2026). Intent to Accept a Valley Fever Vaccine for Humans and Dogs and Factors Influencing Intended Uptake: A Cross-Sectional Survey in Two Endemic Regions. *Journal of Fungi* 12(6), 420.
6. Morgan Bustamante BL, Bartels JGE, Lee A, BA2, Kane NJ, Reynolds RM, White TC, Hoffman M, **Head JR** Remais JV, (2026). A Comparative Analysis Estimating Aspergillosis and Histoplasmosis Encounters among Inpatients in the United States Using Multi-Regional Electronic Health Record and National Discharge Data, 2014–2020. **AJE Advances: Research in Epidemiology** 2(2): uuag012.
7. Byrd M*, Wang M, Li G, Bhaumik D, Gibson K, Chin-Lin S, Salzman E, **Head JR** Mody L, Foxman B, (2026). Clinical Predictors of Nose/throat Bacteriome and Fungal Colonization in Skilled Nursing Facility Residents. **Journal of Infectious Diseases**: 1(15): e101–e109.
8. Schollaert CL*, Camponuri SK, Couper L, **Head JR**, Heaney AK, Rahimi S, Remais JV, Marlier ME (2026). Choice of downscaled climate product matters: Projections of valley fever seasonality in a warming climate. **Geo-Health** 10(1): e2025GH001624
9. Goncalves-Souza T, Fung Au T, Brinkhoff RE, McPherson MR, Raubenheimer SL, Rocci KS, Song Y, Zheng L, **Head JR**, Chen X, Bardou R, Reich PB (2026). Extending Trait-Based Ecology Across Disciplines in the Face of Global Change **Ecology and Evolution** 16(7): e74068.
10. Bartels JGE*, Camponuri SK, Snow TT, Bustamante BLM, Kane NJ, Reynolds RM, Lee A, Hoffman MA, White TC, Remais JV, **Head JR**. (2025). Updating the epidemiology of blastomycosis and histoplasmosis in the United States, using national electronic health record data, 2013–2023. **The Journal of Infectious Diseases** jiaf472.
11. Brooks RA*, Yan K, **Head JR**. (2025). Assessment of prior infection with histoplasmosis using skin test and serological surveys: a global systematic review. **Open Forum Infectious Diseases** 12(8): ofaf437.
12. Bartels JGE*, **Head JR**, Camponuri SK, Eisen EA. (2025). Valley Fever Is an Occupational Illness: Let’s Get the Data to Prevent It[<https://doi.org/10.1002/ajim.70017>]. **American Journal of Industrial Medicine** 68(11):929–932.
13. Radosevich MT*, Dobson S, Weaver AK, Lampman PTA, Kollath DR, Couper L, Campbell G, Taylor JW, Remais JV, Kobziar L, Markwiese J, **Head, JR**. (2025). Detection of airborne *Coccidioides* spores using lightweight

portable air samplers affixed to uncrewed aircraft systems in California's Central Valley. **Environmental Science & Technology Letters**. 12(5).

14. Camponuri SK*, Heaney AK, Sondermeyer Cooksey G, Vugia DJ, Jain S, Swain D, Balmes J, Remais JV, **Head, JR**. (2025). Recent and forecasted increases in coccidioidomycosis incidence in California linked to hydroclimatic swings. **Emerging Infectious Diseases**. 31(5).
15. Camponuri SK*, **Head, JR**, Collender PA, Weaver AK, Heaney AK, Colvin KA, Bhattachan A, Sondermeyer-Cooksey G, Vugia DJ, Jain S, Remais JV. (2025). Prolonged coccidioidomycosis transmission seasons in a warming California: a Markov state transition model of shifting disease dynamics. **Journal of the Royal Society Interface**. 22: 20240821.
16. Radosevich MT*, **Head, JR**, Couper L, Weaver AK, Camponuri SK, Montoya L, Taylor JW, Remais JV. (2025). Characterizing the Soil Microbial Community Associated with the Fungal Pathogen *Coccidioides immitis*. **Journal of Fungi**. 11(4):309.
17. Byrd MC*, Stark A, **Head J**, Su CL, Salzman E, Mody L, Foxman B. (2025). Skilled nursing facility population characteristics and length of stay: a prospective cohort study. **Journal of the American Medical Directors Association** 26(11).
18. Wu R*, Song Y, **Head JR**, Katz DW, Peay KG, Shedden K, Zhu K. (2025). Fungal spore seasons advanced across the US over two decades of climate change. **GeoHealth** 9(7): e2024GH001323.
19. Lin E*, Bilinski A, Collender PA, Lee V, Sud S, Leon TM, White LA, Remais JV, **Head JR**. (2024). Association of COVID-19 incidence with age eligibility for elementary school in California. **JAMA Network Open** 7(11), e2444836.
20. Heaney AK, Camponuri SK, **Head JR**, Collender PA, Weaver AK, Sondermeyer-Cooksey G, Yu A, Vugia D, Jain S, Bhattachan A, Taylor JW, Remas JV. (2024). Coccidioidomycosis seasonality in California: climate determinants and spatiotemporal variability of seasonal dynamics, 2000-2021 **Lancet Regional Health Americas** 38, 100864.
21. Weaver AK*, Keeney N, **Head JR**, Heaney AK, Camponuri SK, Collender P, Bhattachan A, Okin GS, Eisen EA, Sondermeyer-Cooksey G, Yu A, Vugia D, Jain S, Balmes J, Taylor J, Remais JV, Strickland MJ. (2024). Estimating the exposure-response relationship between fine mineral dust concentration and coccidioidomycosis incidence using speciated particulate matter data: A longitudinal surveillance study. **Environmental Health Perspectives** 133(1).
22. **Head JR**, Collender P, Leon T, Sud S, Camponuri S, Lee V, Lewnard J, Remais JV. (2024). COVID-19 Vaccination and Incidence of Pediatric SARS-CoV-2 Infection and Hospitalization. **JAMA Network Open** 7(4), e247822.
23. Cheng Q, Jing Q, Collender PA, **Head JR**, Li Q, Yu H, Li Z, Ju Y, Chen T, Wang P, Cleary E, Lai S. (2023). Prior water availability modifies the effect of heavy rainfall on dengue transmission: a time series analysis of passive surveillance data from southern China. **Frontiers in Public Health**. 11. 1287678.
24. Li C, Lum F, Chen EM, Collender PA, **Head JR**, Kurana RN, Cunningham ET, Moorthy RS, Parke DW, McLeod SD. (2023). Shifts in ophthalmic care utilization during the COVID-19 pandemic in the US. **Communications medicine**. 3(181).
25. Phillips S*, Jones I, Sondermyer-Cooksey G, Yu A, Heaney AK, Zhou B, Bhattachan A, Mgbara W, Wagner R, Taylor J, Lettenmaier D, Okin G, Jain S, Vugia DJ, Remais JV, **Head JR**. (2023). Population-level association between wildfires and coccidioidomycosis cases in California, 2000-2018: a synthetic control analysis. **Environmental Epidemiology**. 7(4), e254.
26. Wagner R*, Montoya, L, **Head JR**, Campo S, Taylor JV, Taylor JW. (2023). *Coccidioides* undetected in agricultural soils and unassociated with time in undeveloped soils. **PLoS Pathogens**. 19(5), e1011391.
27. **Head JR**, Sondermyer-Cooksey G, Heaney AK, Yu A, Jones I, Bhattachan A, Campo S, Wagner R, Mgbara W, Phillips S, Keeney N, Taylor J, Eisen E, Hubbard, A, Vugi DJ, Jain S, Remais JV. (2022). Effects of precipitation, heat, and drought on incidence and expansion of coccidioidomycosis in western USA: a longitudinal surveillance study. **Lancet Planetary Health**. 6(10), e793-e803.
28. **Head JR**, Chanthavilay P, Catton H, Vongsitthi A, Khamphouxay K, Simphaly N. (2022). Changes in household food security, access to health services, and income in northern Lao PDR during the COVID-19 pandemic. **BMJ**

29. Andrejko KL, **Head JR**, Lewnard JA, Remais JV. (2022). Longitudinal social-contact patterns among school-aged children during the COVID-19 pandemic: The Bay Area Contacts among Kids (BACK) study. **BMC Infectious Diseases**. 22(1), 1-14.
30. Weaver AK, **Head, JR**, Gould, CF, Carlton, EJ, Remais, JV. (2022). Environmental factors influencing COVID-19 incidence and severity. **Annual Reviews in Public Health**, 43(27), 27.
31. Yale G, Lopes M, Isloor S, **Head JR**, Mazeri S, Gamble L, Gongal G, Gibson AD. (2022). Review of oral rabies vaccination of dogs and its application in India. **Viruses**. 14(1), 155.
32. Cheng Q, Collender PA, Heaney AK, McLoughlin A, Yang Y, Zhang Y, **Head JR**, Dasan R, Liang S, Lv Q, Liu Y, Yang C, Chang HH, Waller LA, Zelner Jm Lewnard JA, Remais JV. (2022). Optimizing laboratory-based surveillance networks for monitoring multi-genotype or multi-serotype infections. **PLoS Computational Biology**. 18(9), e1010575.
33. Wagner R, Montoya L, Cheng G, **Head JR**, Remais JV, Taylor J. (2022). The air mycobiome is decoupled from the soil mycobiome in the California San Joaquin Valley. **Molecular Ecology**. 31, 4962– 4978.
34. Ross YB, Hoque M, Blanton JB, Kennedy ED, Tahmina S, **Head JR**, Wallace RM, Rana MS, Bonaparte S. (2022). Rabies healthcare-seeking behaviors of urban and peri-urban residents: results from a rabies knowledge, attitudes, and practices survey, Bangladesh, 2018. **PLoS Neglected Tropical Diseases**. 16(8), e0010634.
35. Bryant-Genevieve J, Bumburidi Y, Kazazian L, Seffren V, **Head J**, Berezovskiy D, Zhakipbayeva B, Salyer S, Knust B, Klena J, Chiang CF, Mirzabekova G, Rakhimov K, Koekeev J, Kartabayev K, Mamadaliyev S, Guerra M, Blanton C, Shoemaker T, Singer D, Moffett D. (2022). Prevalence of Crimean-Congo hemorrhagic fever virus among livestock and ticks in Zhambyl region, Kazakhstan, 2017. **American Journal of Tropical Medicine and Hygiene**. 106(5), 1478-1485.
36. **Head JR**, Andrejko KL, Remais JV. (2021). Model-based assessment of SARS-CoV-2 Delta variant transmission dynamics within partially vaccinated K-12 school populations. **The Lancet Regional Health-Americas**. 5, 10013.
37. **Head JR**, Andrejko KL, Cheng Q, Collender PA, Phillips S, Boser A, Heaney AK, Hoover CM, Wu SL, Northrup GR, Click, K, Bardach, NS, Lewnard, JA, Remais, JV. (2021). School closures reduced social mixing of children during COVID-19 with implications for transmission risk and school reopening policies. **Journal of the Royal Society Interface**. 18(177), 20200970.
38. Heaney AK, **Head JR**, Broen K, Click K, Taylor J, Balmes JR, Zelner J, Remais JV. (2021). Coccidioidomycosis and COVID-19 Co-Infection, United States, 2020. **Emerging Infectious Diseases**. 27(5), 1266.
39. Bumburidi Y, Utepbergenova G, Yerezhepov B, Berdiyarova N, Kulzhanova K, **Head J**, Moffett M, Singer D, Angra P, Whistler T, Sejvar J. (2021). Etiology of acute meningitis and encephalitis from hospital-based surveillance in South Kazakhstan oblast, February 2017—January 2018. **PLoS One**. 16(5), e0251494.
40. **Head JR**, Collender PA, Lewnard JA, Skaff NK, Li L, Cheng Q, Baker JM, Li C, Chen D, Ohringer A, Liang S, Yang C, Hubbard A, Lopman B, Remais JV. (2020). Early evidence of inactivated enterovirus 71 vaccine impact against hand, foot, and mouth disease in a major center of ongoing transmission in China, 2011–2018: a longitudinal surveillance study. **Clinical Infectious Diseases**. 71(12), 3088-3095.
41. **Head JR**, Bumburidi Y, Mirzabekova G, Rakhimov K, Dzhumankulov M, Salyer SJ, Knust B, Berezovskiy D, Kulatayeva M, Zhetibaev S, Shoemaker T, Nicholson WL, Moffett D. (2020). Risk Factors for and Seroprevalence of Tickborne Zoonotic Diseases among Livestock Owners, Kazakhstan. **Emerging Infectious Diseases**. 26(1), 70.
42. Cheng Q, Trangucci R, Nelson KN, Fu W, Collender PA, **Head JR**, Hoover CM, Skaff NK, Li T, Li X, You Y, Fang L, Liang S, Yang C, He J, Zelner J, Remais JV. (2020). Prenatal and early-life exposure to the Great Chinese Famine increased the risk of tuberculosis in adulthood across two generations. **Proceedings of the National Academy of Sciences**. 117(44), 27549-27555.
43. Skaff NK, Cheng Q, Clemesha RE, Collender PA, Gershunov A, **Head JR**, Hoover CM, Lettenmaier DP, Rohr JR, Snyder RE, Remais JV. (2020). Thermal thresholds heighten sensitivity of West Nile virus transmission to changing temperatures in coastal California. **Proceedings of the Royal Society B**. 287(1932), 20201065.

44. Gribble MO, **Head JR**, Prabhakaran D, Kapoor D, Garg V, Mohan D, Anjana RM, Mohan V, Vasudevan S, Kadir MM, Tandon N, Narayan NK, Patel SA, Jaacks, LM. (2020). Potentially Heterogeneous Cross-Sectional Associations of Seafood Consumption with Diabetes and Glycemia in Urban South Asia. **International Journal of Environmental Research and Public Health**. 17(2), 459.
45. Barbosa Costa G, Ludder F, Monroe B, Dilius P, Crowdis K, Blanton JD, Pieracci EG, **Head JR**, Wallace R. (2020). Barriers to attendance of canine rabies vaccination campaigns in Haiti, 2017. **Transboundary and Emerging Diseases**. 67(6), 2679-2691.
46. **Head JR**, Vos A, Blanton J, Müller T, Chipman R, Pieracci EG, Cleaton J, Wallace R. (2019). Environmental distribution of certain modified live-virus vaccines with a high safety profile presents a low-risk, high-reward to control zoonotic diseases. **Scientific Reports**. 9(1), 1-12.
47. **Head J**, Pachón H, Tadesse W, Tesfamariam M, Freeman M. (2019). Integration of water, sanitation, hygiene and nutrition programming is associated with lower prevalence of child stunting and fever in Oromia, Ethiopia. **African Journal of Food, Agriculture, Nutrition and Development**. 19(4).
48. **Head JR**, Chang H, Li Q, Hoover CM, Wilke T, Clewing C, Carlton EJ, Liang S, Lu D, Zhong B, Remais JV. (2016). Genetic evidence of contemporary dispersal of the intermediate snail host of *Schistosoma japonicum*: movement of an NTD host is facilitated by land use and landscape connectivity. **PLoS Neglected Tropical Diseases**. 10(12), e0005151.
49. **Head JR**, Getachew B, Gabrehiwot M. (2014). Harnessing local technology: Manufacturing small scale mixers for the fortification of edible oils and wheat flours in northern Ethiopia. **IEEE Global Humanitarian Technology** 207-214.
50. Wu SG, Huang L, **Head J**, Ball M, Tang YJ, Chen DR. (2014). Electrospray facilitates the germination of plant seeds. **Aerosol and Air Quality Research** 14(3), 632-641.
51. Wu SG, Huang L, **Head J**, Chen DR, Kong I-Ch, Tang YJ. (2012). Phytotoxicity of metal oxide nanoparticles is related to both dissolved metals ions and adsorption of particles on seed surfaces. **Journal of Petroleum and Environmental Biotechnology**. 3(4), 126.

Select conference presentations

Head JR. (2026, Aug). *Coccidioides skin test performance and patterns of prior immunity to coccidioidomycosis among a large population of males entering California state prisons, 2015–2024: a population-based modelling study* Oral presentation at the Coccidioidomycosis Study Group in Davis, CA.

Head JR. (2025, Nov). *The impact of climate change on fungal pathogens in Michigan*. Invited oral presentation at the Michigan Infectious Disease Society in Novi, MI.

Head JR. (2025, Oct). *Extreme Weather and Fungal Pathogens*. Invited oral presentation to the STAT Network (Brown University, online).

Kruger S*, **Head JR.** (2025, Aug). *Regional increases in coccidioidomycosis incidence—Arizona, 2005-2022*. Poster presentation at the International Society of Environmental Epidemiology Meeting in Atlanta, GA.

Head JR. (2025, Aug). *Coccidioides (Spherulin) Skin Test Performance and Patterns of Prior Immunity by Age Among Men Entering State Prisons in California, 2015-2024*. Poster presentation at the 69th Annual Coccidioidomycosis Study Group Meeting in Tucson, AZ

Head JR. (2024, Sept). *Climate Change and the Emergence and Expansion of Fungal Diseases*. Invited oral presentation at the Mycoses Study Group in Silver Springs, CO.

Head JR. (2024, Aug). *Modeling the future of Valley fever epidemiology [in a changing climate]*. Invited oral presentation at FDA/NIAID/CDC “Towards a vaccine for Valley fever” workshop. Rockville, MD.

Head JR. (2024, Aug). *Recent and forecasted increases in coccidioidomycosis incidence in California linked to hydro-climate swings*. Oral presentation at the Midwest Neglected Infectious Diseases Conference in Ann Arbor, MI.

Head JR. (2024, Jun). *Small mammals and their burrows shape the distribution of Coccidioides in soils: evidence from a long-term ecological experiment in the Carrizo Plain National Monument, California, USA*. Poster presentation at the Ecology and Evolution of Infectious Diseases Conference in Stanford, CA.

Dobson, SJ* (presenter), **Head JR.** (2024, May). *Detection of airborne C. immitis spores using unmanned aircraft systems in the Carrizo Plain, California.* Oral presentation Beyond the Haze: A Symposium on Dust Impacts on Climate, the Environment and Human Health in Davis, CA.

Head JR. (2024, Apr). *Detection of airborne C. immitis spores using unmanned aircraft systems in the Carrizo Plain, California.* Oral presentation at the 67th Annual Coccidioidomycosis Study Group in San Antonio, TX.

Head JR. (2023, June). *Drought in Western United States displaces and amplifies coccidioidomycosis, an emerging fungal disease: a longitudinal surveillance study.* Oral presentation at the Society for Epidemiologic Research Conference in Seattle, OR.

Head JR. (2023, Apr). *Small mammals and their burrows shape the distribution of Coccidioides in soils: evidence from a long-term ecological experiment in the Carrizo Plain National Monument, California, USA.* Oral presentation at the 67th Annual Coccidioidomycosis Study Group in Tucson, AZ.

Head JR. (2022, Nov). *Effects of precipitation, heat, and drought on coccidioidomycosis incidence and expansion in California.* Invited oral presentation at the National Academies of Sciences Workshop on Valley Fever in Irvine, CA.

Head JR. (2022, Oct). *Influence of meteorological factors and drought on coccidioidomycosis incidence in California.* Invited oral presentation at the California Association of Public Health Laboratories Directors Conference in Walnut Creek, CA.

Head JR. (2022, June). *K-12 vaccination policy options in light of heterogeneity in infection- and vaccine-induced immunity across California counties.* Oral presentation at the UC-CDPH COVID modeling consortium (virtual).

Head JR. (2022, Apr). *Influence of meteorological factors and drought on coccidioidomycosis incidence in California, 2000-2020.* Oral presentation at the 66th Annual Coccidioidomycosis Study Group Meeting in Bakersfield, CA.

Head JR, Remais JV. (2021, Sept). *Model-based assessment of Delta transmission in K-12 schools.* Oral presentation at the UC-CDPH COVID modeling consortium (virtual).

Head JR, Andrejko, KL, Remais JV. (2021, May). *Schools modeling & examining longitudinal social contact patterns among households with children.* Oral presentation at the UC-CDPH COVID modeling consortium (virtual).

Andrejko KL, **Head JR.** (2021, Apr). *The effect of school closures and reopening strategies on COVID-19 infection dynamics in the San Francisco Bay Area: a cross sectional survey.* Oral presentation at the MIDAS Network Annual Meeting (virtual).

Head JR, Andrejko KL, Remais JV. (2020, Sept). *The effect of school closures and reopening strategies on COVID-19 infection dynamics in the San Francisco Bay Area* Panelist for MIDAS Webinar on ‘The impact of school reopening on COVID-19 transmission: modeling studies in Indiana, the San Francisco Bay Area, and King County, WA’ (virtual).

Head JR, Collender PA, Lewnard JA, Skaff NK, Li L, Cheng Q, Baker JM, Li C, Chen D, Ohringer A, Liang S, Yang C, Hubbard A, Lopman B, Remais JV (2019, Dec). *Early Evidence of Reduction in Hand, Foot, and Mouth Disease Caused by Enterovirus 71 Following Vaccination Introduction in Chengdu, China.* Poster presentation at the Epidemics⁷ International Conference on Infectious Disease Dynamics in Charleston, SC.

Head JR, Skaff NK, Hoover CM, Remais JV. (2019, March). *Spatiotemporal factors affecting dead bird reporting for West Nile Virus surveillance in California.* Poster presentation at the Bay Area Ecology and Evolution of Infectious Disease Conference in Stanford, CA.

Head JR, Vos A, Blanton J, Müller T, Chipman R, Pieracci EG, Cleaton J, Wallace R. (2018, November). *What’s the harm? A risk model to quantify human and animal adverse events from environmentally distributed modified live-vaccine viruses.* Oral Presentation at the American Society of Tropical Medicine and Hygiene Conference in New Orleans, LA.

Head JR, Bumburidi Y, Salyer S, Knust B, Mirzabekovna MG, Moffett D. (2018, January). *Prevalence of CCHF Virus in Ticks and People and Public Awareness in Zhambyl Region, Kazakhstan.* Oral presentation at the International Society of Disease Surveillance Conference in Orlando, FL.

Head J, Bumburidi Y, Salyer S, Knust B, Mirzabekovna MG, Moffett D. (2017, November). *Serovalence and Knowledge, Attitudes, and Practices of Crimean Congo Hemorrhagic Fever among People who Interact with Livestock in Zhambyl, Kazakhstan.* Poster presentation at the American Society of Tropical Medicine and Hygiene Conference in Baltimore, MD.

Head J, Tadesse W, Pachón H, Freeman M. (2016, September). *Plausibility Evaluation of Combined WASH, Health and Nutrition Programming on Childhood Growth and Maternal and Child Illness in Oromia, Ethiopia*. Oral presentation at CityMatCH Leadership and MCH Epidemiology Conference in Philadelphia, PA.

Head J, Howard C, Remais J. (2015, October). *Determinants of Schistosoma japonicum intermediate host migration in Sichuan, China*. Oral presentation at the American Society of Tropical Medicine and Hygiene Conference in Philadelphia, PA.

Head J, Getachew B, Gabrehiwot M. (2014, October). *Harnessing Local Technology: Manufacturing Small Scale Mixers for Fortification of Edible Oils and Wheat Flour in Northern Ethiopia*. Oral presentation at the IEEE Global Humanitarian Conference in San Jose, CA.

Teaching

COURSE INSTRUCTOR

Principles and Methods of Epidemiology (EPID 601)

Lead Instructor for doctoral-level epidemiologic methods course of 40-66 students

U Michigan
Fall, 2024-2025

Epidemiologic Data Analysis Using R (EPID 674)

Lead Instructor for a online introductory R graduate course of 12 students

U Michigan
Winter, 2024

Introduction to Geographic Information Systems for Public Health (PHW272A)

Lead Instructor and course developer for a online introductory GIS course of >50 graduate students

UC Berkeley
Spring, 2023

Introduction to epidemiologic analysis of surveillance data

Designed seminar on basic epidemiological concepts for analysis of surveillance data

Kazakhstan
Jan, 2017

Introduction to anthropometric survey analysis with R and WHO Anthro

Designed and led week-long course on analysis of anthropometric and nutrition survey data

Lao PDR
Summer, 2016

INVITED SEMINARS

The role of climate change and other environmental disturbances in the emergence and expansion of endemic mycoses in the U.S.

Duke's Climate and Fungi (CLiF) II Symposium

May 2026

How common is Coccidioides?: Early evidence of Coccidioides airborne concentrations and population prevalence of prior infection from field and epidemiologic studies in California

Club EV Med

May 2026

The role of climate change, dust- generating events, and rodents in the emergence of Valley fever in California

Ecology & Evolution of Infectious Diseases (EEID) Forum

Jan 2026

Climate change & the emergence of human pathogens

University of Michigan Department of Climate, Atmospheric, and Space Sciences

October 2025

How Environmental Pressures Alter Fungal Disease Epidemiology

CAFE Climate and Health Network

July 2025

Climate Change and the Emergence and Expansion of Fungal Diseases

Michigan Medicine Grand Rounds

March 2025

The role of climate change, wildfire, and rodents in the emergence of Valley fever in California: results from epidemiologic and experimental studies

Texas Tech University Department of GeoSciences

Feb 2025

The role of climate change, wildfire, and rodents in the emergence of Valley fever in California: results from epidemiologic and experimental studies

Yale Center for Climate and Health

April 2024

GUEST LECTURES

The role of hydroclimate volatility and dust-generating events in the transmission of Valley fever in California

Case Western University

Guest lecturer for MPHP 441: Climate Change and Health

Winter, 2026

Epidemiology of Fungal Infections

Guest lecturer for EH735: Environmental Determinants of Infectious Diseases

Boston University

Winter, 2026

Epidemiology of Fungal Infections

Guest lecturer for EPID 605: Epidemiology of Infectious Diseases

University of Michigan

Fall, 2025

Blastomycosis in a Changing Environment

Guest lecturer for Public Health Prepared Series on One Health

University of Michigan

Fall, 2024

Climate Change and Infectious Disease Dynamics

Guest lecturer for CLIMATE/EAS 480: Climate Change: A multidisciplinary approach to climate change

University of Michigan

Winter, 2024

Wildlife and Infectious Diseases

Guest lecturer for EAS 547: Wildlife and Society
Berkeley

University of Michigan

Fall, 2023

Guest lecturer for two courses

Fall, 2022

A roadmap for the analysis of time series data on environmentally-mediated infectious disease

Guest lecture

UC Berkeley

Fall, 2018, 2019 & 2020

GRADUATE STUDENT INSTRUCTION

Advanced Epidemiologic Methods (PH250C)

Lead Graduate Student Instructor for a course of 25 graduate students; led weekly discussion sessions

UC Berkeley

Spring, 2020

Epidemiologic Methods I (PH250A)

Graduate Student Instructor for a course of >100 graduate students; led weekly discussion sessions

UC Berkeley

Fall, 2019

Digital Publications

SOFTWARE

Epidemiology Review

<https://jrhead.shinyapps.io/EpidemiologyReview/>

Open-source and interactive website featuring reviews of core concepts in epidemiology, interactive problems, and re-generative problem sets.

ARTICLES FOR THE PUBLIC

1. Head JR, Camponuri SK, Heaney AK (2024). Fungal infections known as valley fever could spike this fall - 3 epidemiologists explain how to protect yourself. *The Conversation*.

SELECT MEDIA APPEARANCES

1. California could face another record-breaking year of Valley fever fungal infection - *NBC News*, May 20, 2025
2. Dust Devil: Climate change may be driving expansion of Valley fever, a deadly fungal infection spread by airborne spores - *Science News*, Jan 16, 2025
3. Drought, flooding, drought again: Is 'weather whiplash' our new normal? - *National Geographic*, Sept 18, 2024
4. The Human Limit: An invisible Killer - *The Washington Post*, November 13, 2023
5. Valley fever: Why the fungal disease is spreading into northern California - *San Francisco Chronicle*, August 13, 2023

Awards and Honors

John G. Searle Assistant Professorship

2024-

UC Berkeley Biomedical Big Data Fellow

2017-2019

Emory Class of 2016 Robert W. Woodruff Fellow

2014-2016

Emory Environmental Health Dept, Top Thesis Award

2016

Fulbright Research Fellow, Ethiopia

2013-2014

Barry M. Goldwater Scholar

2013

Wash.U. Class of 2013 William H. Danforth Scholar

2009-2013

Wash.U. Class of 2013 John B. Ervin Scholar

2009-2013

Mentoring

PHD DISSERTATION COMMITTEE CHAIR

1. Natalie Wodniak, Department of Epidemiology 2025 - present
2. Vanessa Slack, Department of Epidemiology 2024 - present
3. Danielle Stone, Department of Epidemiology (co-chair) 2024 - present

PHD DISSERTATION COMMITTEE MEMBER

1. Awnish Singh, Department of Epidemiology 2025 - present
2. Joshua Foster-Tucker, Department of Epidemiology 2025 - present
3. Jade Yangyupei Yang, Department of Epidemiology 2024 - present
4. Morgan Byrd, Department of Epidemiology 2023 - present

MS/MPH CAPSTONE/ILE ADVISOR

1. Nate Truenetter, Department of Epidemiology 2024 - 2025
2. Violette Bonvallet, Department of Epidemiology 2024 - 2025
3. Sarah Dobson, Department of Epidemiology 2023 - 2024
4. Ivy Early, Department of Epidemiology 2023 - 2024

UNDERGRADUATE THESIS ADVISOR

1. Jack Ullman 2024-2025

Service to the profession

Masters Committee member, Department of Epidemiology 2024-present

Doctoral Committee member, Department of Epidemiology 2023-2024

Conducted peer review for:

- Environmental Health Perspectives, Lancet Regional Health Americas, Vaccines 2026
- Nature, Lancet Planetary Health, Emerging Infectious Diseases, Environment Science & Technology Letters, Global Change Biology, GeoHealth, Plos Pathogens, Plos Neglected Tropical Diseases, Rapid Reviews, Pathogens, BMC Pulmonary Health, International Journal of Environmental Health Research 2025
- PLoS Medicine, Nature Communications, American Journal of Epidemiology, Environmental Health Perspectives, JAMA Network Open, GeoHealth, Mathematical Biosciences and Engineering, Communications Medicine, Public Health 2024
- Nature Communications, BMJ Global Health, PLoS Neglected Tropical Diseases, American Journal of Tropical Medicine and Hygiene 2023
- American Journal of Epidemiology, PLoS Neglected Tropical Diseases, Viruses 2022
- American Journal of Epidemiology, Frontiers in Public Health 2021
- PLoS Neglected Tropical Diseases, Parasite & Vectors, EcoHealth, PLoS One (x2) 2020
- Scientific Reports, Sokoto Journal of Veterinary Sciences 2019
- PLoS Neglected Tropical Diseases 2018

Vice President, Emory SPH Environmental Health and Action Committee 2015 - 2016

Community engagement

Washington University Detroit Alumni Coordinator Sept, 2023 - present

Court Appointed Special Advocate (CASA) - judge appointed advocate for two foster youth June, 2019 - Aug, 2023

Washington University East Bay Alumni Coordinator Jan, 2021 - Aug, 2023

- Project lead: led efforts to improve the water storage and distribution system at the Mekelle School for the Blind in Ethiopia by rebuilding a water tower and installing a water distribution piping network
- Fundraising Officer: Organized on-campus fundraisers that raised over 4,000 USD and coordinated grant writing nights that raised over 18,000 USD.

Technical Skills

Statistical fluency: compartmental and agent-based mathematical models, synthetic controls, hierarchical models, Bayesian analysis, meta-analysis, interrupted time series, ensemble models, G-computation, inverse probability weighting, regression discontinuity.

Advanced user of R/RStudio/RShiny, $\text{\LaTeX}$, ArcGIS/QGIS, SAS, and high performance computing environments.

Familiar with Python, MATLAB, bash, Unix.

Languages:

- English: native
- Spanish: proficient
- French: advanced