

Jacqueline Ferguson

Curriculum Vitae

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Education

- Ph.D.** **University of California, Berkeley School of Public Health** 2019
Division of Environmental Health Sciences
- Dissertation:** Working in Dangerous Times: The Effect of Shift Work on Worker Health in the American Manufacturing Cohort
Dissertation Chair: Ellen Eisen, PhD
- M.H.S.** **Johns Hopkins Bloomberg School of Public Health (JHSPH)** 2013
Environmental Health Sciences.
- Thesis:** The Waterpipe Smoking Epidemic: An Emerging Deadly Trend
Thesis Chair: Frank Curriero, PhD
Risk Sciences and Public Policy Certificate
- B.A.** **Johns Hopkins University (JHU)** 2012
Public Health Studies, *Departmental and University Honors*
- Honors Thesis:** Secondhand Smoke Exposure on the Homewood Campus: An Analysis of Airborne Nicotine and Particulate Matter (PM_{2.5}) in Academic and Dormitory Buildings

Professional Experience

- Veterans Affairs (VA) Health Research Fellow** (Dual appointment with Stanford) 2019--
Big Data Scientist Training Enhancement Fellow, VA Palo Alto Health Care System (*Donna Zulman, PhD*)
- Veterans Negatively Affected by Multiple Social Determinants of Health: Identifying Important Components and Estimating Mixture Effects
 - Socio-Economic and Geographic Disparities among Veterans with COVID-19
- Post-doctoral Scholar** (dual appointment with VA) 2019--
Stanford Medicine, Center for Population Health Sciences (*David Rehkopf, PhD*)
- How does job stress in the workplace impact health as it accrues during work-life?
 - Impact of COVID-19 on Patients with Cancer (*Manali Patel, MD*)
- Senior Data Science Fellow; D-Lab Stata Consultant** 2016-2018
University of California, Berkeley
- 1:1 consulting on research design, data analysis, data management
- Research Assistant** 2016
Robert Wood Johnson Foundation Scholars in Health Policy Research Program
University of California, Berkeley
- Generated a harmonized dataset from decades of the adult public insurance participation files.

- Senior Research Program Coordinator** 2014-2015
Tobacco Pack Surveillance Program- 14 Country (Joanna Cohen, PhD)
 Johns Hopkins Bloomberg School of Public Health, Institute for Global Tobacco Control
- Independent data cleaning, curation, and analysis from a 14-country study assessing tobacco pack health warning compliance and pack features/appeals
- Laboratory Technician** 2013-2014
Enteric Bacteria Laboratory (David Sack, MD)
 Johns Hopkins Bloomberg School of Public Health, Department of International Health
- Performed specialized assays: ELISA, PCR, gel electrophoresis, tissue culture, immunoblot methods
- Research Assistant** 2012-2013
Characterization of Environmental Toxicants and Tobacco Biomarkers (Ana Navas-Acien, MD, Patrick Breysse, PhD)
 Johns Hopkins Bloomberg School of Public Health, Department of Environmental Health, Part time
- Created training manuals and a relational Access Database with branching logic
- Research Assistant** 2012-2013
Pets and Environmental Transmission of Staphylococci Study (Meghan Davis, PhD)
 Johns Hopkins Bloomberg School of Public Health Department of Environmental Health, Part Time
- Performed laboratory-based microbial culture, antimicrobial susceptibility testing, and genetic analysis of staphylococcal isolates
 - Conducted field sampling for environmental and bio-aerosol samples in participant homes.
- Research Assistant** 2009-2013
 Johns Hopkins Bloomberg School of Public Health, Institute for Global Tobacco Control, Part time
- International spatial data snapshot analysis research, literature reviews

Fellowships, Scholarships, and Grants

- U.S. Department of Veterans Affairs: VA Advanced Fellowship 2019-2021
Big Data-Scientist Training Enhancement Program (BD-STEP)
- UC Berkeley Graduate Division Student Technology Fund (PI) 2019
Monitors for Ergonomic Student-Shared Workstations (18F-FT-23 Awarded \$4,845)
- UC Berkeley Graduate Division Conference International Travel Grant 2019
- National Institutes of Health National Ruth L. Kirschstein Award 2016-2018
Institutional Training Grant 5 T42 OH 8429-14
- UC Berkeley Graduate Division Conference Domestic Travel Grant 2018
- UC Berkeley Environmental Health Sciences Division Fellowship 2015- 2018
Annual Award in recognition of distinguished academic record and continued noteworthy achievement.

UC Berkeley Power Top Off Award <i>Incentive scholarship to recruit competitive students to UC Berkeley</i>	2015
The Dr. Edmond Preston III and Elizabeth J. Preston Scholarship Fund <i>Scholarship to financially assist graduate students who have demonstrated academic excellence</i>	2015
UC Berkeley Public Health Alumni Scholarship 2016 <i>Scholarship awarded to students with professional potential and a commitment to public health</i>	2016
Johns Hopkins University Provost's Undergraduate Research Award (PI) <i>University grant designed to enable undergraduate students to engage in novel research</i>	2011
Johns Hopkins University Center for Educational Resources Technology Fellowship Grant (co-PI) Competitive grant designed to enable the inclusion of novel technology into undergraduate courses. <i>"Using M-Health and GIS Technology in the Field to Improve Student Learning Experiences"</i>	2011

Honors and Awards

University of California, Berkeley, D-Lab Data Science Fellow <i>2019 Awarded to recognize significant contributions in service to the D-Lab community</i>	
Best Student Paper, The 27 th International Symposium on Epidemiology in Occupational Health, <i>Joint Effects of Night Work and Shift Rotation on Treated Depression in a Cohort of Manufacturing Workers</i> +Paper Indefinitely Embargoed	2019
Outstanding Graduate Student Instructor Award, University of California, Berkeley <i>Award for contributing to the academic excellence of the university through pedagogical success</i>	2019
Johns Hopkins University Public Health Studies Most Distinguished Senior Thesis Award <i>"Secondhand Smoke Exposure on the Homewood Campus: An Analysis of Airborne Nicotine and Particulate Matter (PM_{2.5}) in Academic and Dormitory Buildings"</i>	2012
Johns Hopkins University Undergraduate Public Health Studies- Departmental Honors <i>Award for academic excellence and completion of a senior thesis</i>	2012
Johns Hopkins University Graduation Honors <i>Award for academic excellence</i>	2012
Johns Hopkins University Undergraduate Dean's List <i>Awarded to students who earn a term grade point average of 3.5 or above</i>	2009-2012

Peer-Reviewed Papers

1. **Ferguson JM**, Costello S, Elser H, Neophytou AM, Picciotto S, Silverman DT, Eisen EA. *Chronic obstructive pulmonary disease mortality: The Diesel Exhaust in Miners Study (DEMS)*. Environ Res. 2019 Nov 1;:108876. doi: 10.1016/j.envres.2019.108876. PubMed PMID: 31711661.
2. **Ferguson JM**, Costello S, Neophytou AM, Balmes JR, Bradshaw PT, Cullen MR, Eisen EA. *Night and rotational work exposure within the last 12 months and risk of incident hypertension*. Scand J Work Environ Health. 2018 Nov 26. pii: 3788. doi: 10.5271/sjweh.3788 PubMed PMID: 30614503.
3. **Ferguson JM**, Jacobs J, Yefimova M, Green L, Zulman D. *Virtual Care Expansion in the Veterans Health Administration During the COVID-19 Pandemic: Clinical Services and Patient Characteristics Associated with Utilization*. Under Peer Review.
4. **Ferguson JM**, Magid H, Purnell AL, Kiang MV, Osborne TF. *Evaluating Differences in COVID-19 Testing and Test-Positivity Among Veterans*. Under Peer Review.
5. Heyworth, L, Kirsh S, Zulman D, **Ferguson JM**, Kizer, KW. *Expanding Access through Virtual Care: The VA's Early Experience with Covid-19*. NEJM Catalyst Innovations in Care Delivery. 2020 July 1
6. Brown DM, Picciotto S, Costello S, Neophytou AM, Izano MA, **Ferguson JM**, Eisen EA. *The Healthy Worker Survivor Effect: Target Parameters and Target Populations*. Curr Environ Health Rep. 2017 Jul 15. doi: 10.1007/s40572-017-0156-x. Review. PubMed PMID: 28712046.
7. Brown J, Welding K, Cohen JE, Cherukupalli R, Washington C, **Ferguson J**, Clegg Smith K. *An analysis of purchase price of legal and illicit cigarettes in urban retail environments in 14 low- and middle-income countries*. Addiction. 2017 Oct;112(10):1854-1860. doi: 10.1111/add.13881. Epub 2017 Jun 26. PubMed PMID: 28556313; PubMed Central PMCID: PMC5600117.
8. Moon KA, Rule AM, Magid HS, **Ferguson J**, Susan J, Sun Z, Torrey C, Abubaker S, Levshin V, Çarkoglu A, Radwan GN, El-Rabbat M, Cohen JE, Strickland P, Breysse PN, Navas-Acien A. *Biomarkers of Secondhand Smoke Exposure in Waterpipe Tobacco Venue Employees in Istanbul, Moscow, and Cairo*. Nicotine Tob Res. 2017 Jun 3. doi: 10.1093/ntr/ntx125. PubMed PMID: 28582531.
9. Cohen JE, Brown J, Washington C, Welding K, **Ferguson J**, Smith KC. *Do cigarette health warning labels comply with requirements: A 14-country study*. Prev Med. 2016 Dec;93:128-134. doi: 10.1016/j.ypmed.2016.10.006. Epub 2016 Oct 3. PubMed PMID: 27713100.
10. Ross H, Vellios N, Clegg Smith K, **Ferguson J**, Cohen JE. *A closer look at 'Cheap White' cigarettes*. Tob Control. 2016 Sep;25(5):527-31. doi: 10.1136/tobaccocontrol-2015-052540. Epub 2015 Sep 28. PubMed PMID: 26418617; PubMed Central PMCID: PMC5036225.
11. Davis MF, Hu B, Carroll KC, Bilker WB, Tolomeo P, Cluzet VC, Baron P, **Ferguson JM**, Morris DO, Rankin SC, Lautenbach E, Nachamkin I. *Comparison of Culture-Based Methods for Identification of Colonization with Methicillin-Resistant and Methicillin-Susceptible Staphylococcus aureus in the*

Context of Cocolonization. J Clin Microbiol. 2016 Jul;54(7):1907-11. doi: 10.1128/JCM.00132-16. Epub 2016 Apr 27. PubMed PMID: 27122377; PubMed Central PMCID: PMC4922128.

12. Moon KA, Magid H, Torrey C, Rule AM, **Ferguson J**, Susan J, Sun Z, Abubaker S, Levshin V, Çarkoğlu A, Radwan GN, El-Rabbat M, Cohen J, Strickland P, Navas-Acien A, Breysse PN. *Secondhand smoke in waterpipe tobacco venues in Istanbul, Moscow, and Cairo*. Environ Res. 2015 Oct;142:568-74. doi: 10.1016/j.envres.2015.08.012. PubMed PMID: 26298558; PubMed Central PMCID: PMC4609287.
13. Smith K, Washington C, Brown J, Vadnais A, Kroart L, **Ferguson J**, Cohen J. *The Tobacco Pack Surveillance System: A Protocol for Assessing Health Warning Compliance, Design Features, and Appeals of Tobacco Packs Sold in Low- and Middle-Income Countries*. JMIR Public Health Surveill. 2015 Aug 12;1(2):e8. doi: 10.2196/publichealth.4616. eCollection 2015 Jul-Dec. PubMed PMID: 27227142; PubMed Central PMCID: PMC4869212.
14. Iverson SA, Brazil AM, **Ferguson JM**, Nelson K, Lautenbach E, Rankin SC, Morris DO, Davis MF. *Anatomical patterns of colonization of pets with staphylococcal species in homes of people with methicillin-resistant Staphylococcus aureus (MRSA) skin or soft tissue infection (SSTI)*. Vet Microbiol. 2015 Mar 23;176(1-2):202-8. doi: 10.1016/j.vetmic.2015.01.003. 2015 Jan 12. PubMed PMID: 25623014.

University and Professional Service

UC Berkeley School of Public Health Dean's Search Committee	2018
Chair, School of Public Health Student Government, University of California Berkeley	2018-2019
Member, Faculty Advisory Council, School of Public Health, University of California Berkeley	2018-2019
Graduate Admissions Committee, Department of Environmental Health Science, UC Berkeley	2016
Peer Mentor Diversity Internship Summer Program, JHSPH	2014-2015
BA/MHS Peer Mentoring Program, Department of Environmental Health Sciences, JHSPH	2012-2013
Ongoing peer-reviewer: American Journal of Epidemiology, Occupational and Environmental Medicine	

Teaching Experience

Guest Lecture, Prison University Project, San Quentin <i>Occupational Health: Protecting Workers: History, Law, and Practice</i>	2019
Primary Workshop Instructor <i>Stata Fundamentals I, II, & III, UC Berkeley, 3-hour workshops, offered 6-8 times a year</i> http://dlab.berkeley.edu/training/stata-fundamentals-part-1-10	2016-2019
Course Redevelopment Lead <i>Introduction to Geographic Information Systems (GIS) for Public Health, Online UC Berkeley, 3 credits</i>	Spring 2019

Graduate Student Instructor <i>Introduction to Geographic Information Systems (GIS) for Public Health, Online UC Berkeley, 3 credits</i>	Spring 2018
Graduate Student Instructor <i>Epidemiologic Methods, UC Berkeley, 3 credits</i>	Fall 2016
Primary Instructor <i>JHU Geographic Information Systems in Public Health, 3 credits</i>	Summer 2015
Co-Instructor <i>Discover Hopkins: Hopkins Medicine: Fostering Healthy Communities, JHMI, 3 credits</i>	2014- 2015
Course Coordinator <i>Urban Environments in Public Health, JHSPH, 2 credits</i>	Summer 2014
Teaching Assistant <i>Spatial Analysis and Geographical Information Systems I, JHSPH, 3 credits</i>	Spring 2013
Primary Instructor <i>Air Quality Exposure Assessment Training Workshop, New Delhi, India</i>	2013
Co-Instructor <i>M-Health, GPS, and Air Quality Exposure Assessment Training Workshop, Istanbul, Turkey</i>	2012
Technical Assistant <i>Population Health and Development, JHU, 3 credits</i>	2012- 2015
Teaching Assistant and Lecturer <i>The Environment and Your Health, Johns Hopkins, JHU, 3 credits</i>	2011- 2015
Teaching Assistant and Co-instructor <i>Applied Geographic Information Systems in Public Health, JHU, 3 credits</i>	Summer 2011

Selected First Author Oral Presentations

Ferguson J, Koskinen A, Härmä M: *Beyond Night Work: The Other Circadian Rhythm Disruptive Characteristics of Shift Work that Occur with and without Night Work*, Working Hours in Nordic Countries (WINC) 2020 Symposium, March 20th, 2020, Helsinki, Finland *Canceled due to COVID-19 Pandemic

Ferguson J, Eisen E, Bradshaw T, Cullen M, Costello S: *Characterizing the Distribution of Shift Domains by Demographics and Shift Schedule in the American Manufacturing Cohort*, Twenty-fourth International Symposium on Shiftwork & Working Time, September 9-13, 2019, Coeur D'Alene, Idaho, USA
+ Paper temporarily embargoed

Ferguson J, Elser H, Costello S, Cullen M, Eisen E: *Joint Effects of Night Work and Shift Rotation on Treated Depression in a Longitudinal Cohort of Manufacturing Workers*, The 27th International Symposium on Epidemiology in Occupational Health (EPICOH), April 29th-May 2, 2019, Wellington, New Zealand
 *Awarded Best Student Paper by EPICOH 2019 Organizing Committee, May 2nd, 2019
 + Paper indefinitely embargoed

Ferguson J, Stewart H, Costello S, Neophytou A, Silverman, Debra, Eisen E: *Chronic Obstructive Pulmonary Disease Mortality in the Diesel Exhaust in Miners Study (DEMS)*, International Society of Exposure Science-International Society for Environmental Epidemiology (ISES-ISEE) 2018 Joint Annual Meeting, August 26th-30th, 2018, Ottawa, Canada

Ferguson J, Costello S, Cullen M, Eisen E: *Shifting Times: Recent Rotational Shiftwork and Incident Hypertension Risk*, The 32nd International Congress on Occupational Health (ICOH), April 29th-May 4, 2018, Dublin, Ireland

Ferguson J, Costello S, Cullen M, Eisen E: *Working Around the Clock: An Exposure Response Relationship between Night work and Incident Hypertension*, The 26th Annual Meeting of Epidemiology in Occupational Health (EPICOH) Meeting August 28-31 2017 Edinburgh, Scotland UK.

Ferguson J, Costello S, Cullen M, Neophytou A, Eisen E: *How Does the American Manufacturing Cohort (AMC) Compare to the Danish Working Hour Database and the Finish Working time Data?*, Working Hours and Health, Nordic Institute for Advanced Training in Occupational Health, May 28th-29 2018 Copenhagen, Denmark

Selected First Author Conference Poster Presentations

Ferguson J, Costello S, Neophytou A, Cullen M, Eisen E: *Hypertension and Night Work: A Need for G-Methods*. Society for Epidemiological Research (SER), June 19-22nd, 2018 Baltimore, Maryland

Ferguson J, Costello S, Neophytou A, Cullen M, Eisen E: *Recent Rotational Shift Work and Incident Hypertension Risk*. Working Hours in Nordic Countries (WINC) Symposium, May 31st 2018, Denmark

Ferguson J, Davis MF. *Survival of Coagulase-Positive Staphylococci on the Copan E-swab Over Time: An Analysis of the Methodology of the Pets and Environmental Transmission of Staphylococci Study*, JHU School of Medicine Joint Poster Session, Summer Internship Programs August 1, 2012, and JHSPH Diversity Summer Internship Program Summer Research Poster Session, August 2, 2012

Ferguson J, Hepp L, Breysee P, and Avila-Tang E. *Secondhand Smoke Exposure on the Homewood Campus: An Analysis of Airborne Nicotine and Particulate Matter 2.5 in Academic and Dormitory Buildings*, CDC National Conference on Health Statistics, August 7, 2012, Washington, DC, Abstract #18, and The Johns Hopkins University Provost Undergraduate Awards Ceremony, May 2012