Stanford

# John Openshaw

Assistant Professor of Medicine (Infectious Diseases and Geographic Medicine)

Medicine - Infectious Diseases


### CLINICAL OFFICE (PRIMARY)

- **Infectious Disease Clinic**

  300 Pasteur Dr Rm L134

  Lane Bldg MC 5107

  Stanford, CA 94305

  **Tel** (650) 723-9062 **Fax** (650) 498-9876


## Bio

### BIO

I am an infectious disease physician, medical epidemiologist, and public and global health researcher. Before going into medicine, I trained in ecology and political science. I have extensive experience implementing health related data collection and interventions across high and low resource settings, from dense urban informal settlements to remote rural areas. I have worked across academia, government, and health-related start-ups. My main academic interest is in the interplay between the environment, health, and pathogens. My work is focused on developing new and creative ways to detect, measure, and mitigate infectious disease threats.

### CLINICAL FOCUS

- Infectious Disease

### ACADEMIC APPOINTMENTS

- Assistant Professor-Univ Med Line, Medicine - Infectious Diseases
- Member, Maternal & Child Health Research Institute (MCHRI)

### ADMINISTRATIVE APPOINTMENTS

- COVID-19 Clinical Team Lead, COVID Pandemic Response, California Department of Public Health, (2020-2022)

### PROFESSIONAL EDUCATION

- Board Certification: Infectious Disease, American Board of Internal Medicine (2019)
- Medical Education: Perelman School of Medicine University of Pennsylvania (2008) PA
- Fellowship, Stanford University Medical Center , Infectious Diseases, Adult (2015)
- Board Certification: Internal Medicine, American Board of Internal Medicine (2012)
- Residency: Stanford University Medical Center (2011) CA
- Internship: Stanford University Medical Center (2009) CA

### COMMUNITY AND INTERNATIONAL WORK

- Mitigating extreme heat in informal settlements, Indonesia
- Pandemic Detection and Response
- Impact and burden of COVID and Long COVID
- Revitalizing Informal Settlements and their Environment, Suva, Fiji; Makassar, Indonesia
- Developing Interventions to End Cycles of Poverty Caused by Taenia solium and Neurocysticercosis, Sichuan, China
- Evaluating Burden of Taenia solium, Fiji

### LINKS

- www.johnopenshaw.com: www.johnopenshaw.com

## Research & Scholarship

### CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research laboratory addresses questions at the intersection of infectious diseases and environmental change. We use field, laboratory, and computational approaches and our work ranges from basic epidemiologic and risk-factor studies to serologic surveys to developing new data collection tools and pathways.

Most of our work fits into one or more of these areas:

Environmental Change and Infectious Diseases — From habitat destruction to climatic change and urbanization, infectious disease pathogens are constantly reacting to environmental change. We seek to better characterize and describe those changes and explain what they mean for human health.

Novel Tools to Evaluate Health Outcomes — We are developing new tools that can be deployed in high and low resource settings to accurately evaluate human health.

Reassessing the Burden of Neglected Infectious Diseases — How we understand and measure the burden of an infectious disease incentivizes or disincentivizes efforts towards elimination, eradication, or control. A large group of infectious diseases are neglected not because they don’t cause suffering, but because traditional approaches are often bad at measuring and putting into context the resulting detrimental costs. We use novel assessment tools and methods to measure the human cost of infection and create models for global burden to incentivize action.

Characterizing, Evaluating, and Mitigating Pandemic Threats — In addition to working to better understand the burden of SARS-CoV-2, we are working to develop diagnostic and computational approaches to understand what pathogens might pose the highest pandemic risk in the future.

## Teaching

### COURSES

**2026-27**

- Epidemic Intelligence: How to Identify, Investigate and Interrupt Outbreaks of Disease: EPI 247, HUMBIO 57 (Aut)

# Publications

## PUBLICATIONS

- **One pathogen does not an epidemic make: a review of interacting contagions, diseases, beliefs, and stories.** *Npj complexity*
  Hébert-Dufresne, L., Ahn, Y. Y., Allard, A., Colizza, V., Crothers, J. W., Dodds, P. S., Galesic, M., Ghanbarnejad, F., Gravel, D., Hammond, R. A., Lerman, K., Lovato, J., Openshaw, et al
  2025; 2 (1): 26

- **Pulling the Drug Out From Underneath: Ethical Considerations in the Discontinuation of the Antimalarial Quinidine.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
  Craft, J. F., Openshaw, J. J., Travassos, P. M., Travassos, M. A.
  2025

- **The Effect of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Reinfection on Long-Term Symptoms in the Innovative Support for Patients With SARS-CoV-2 Infections Registry (INSPIRE).** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
  Openshaw, J. J., Chen, J., Rodriguez, R., Gottlieb, M., McCullough, K., Santangelo, M., Hill, M. J., Gatling, K., Idris, A. H., McDonald, S., Wisk, L. E., Dyal, J., Wang, et al
  2025

- **Seroprevalence, incidence estimates, and environmental risk factors for dengue, chikungunya, and Zika infection amongst children living in informal urban settlements in Indonesia and Fiji.** *BMC infectious diseases*
  Rosser, J. I., Openshaw, J. J., Lin, A., Taruc, R. R., Tela, A., Tamodding, N., Abdullah, N. P., Amiruddin, M., Buyukcangaz, E., Barker, S. F., Turagabeci, A., , Leder, K., et al
  2025; 25 (1): 51

- **Seroprevalence, incidence estimates, and environmental risk factors for dengue, chikungunya, and Zika infection amongst children living in informal urban settlements in Indonesia and Fiji.** *Research square*
  Rosser, J. I., Openshaw, J. J., Lin, A., Taruc, R. R., Tela, A., Tamodding, N., Abdullah, N. P., Amiruddin, M., Buyukcangaz, E., Barker, S. F., Turagabeci, A., Ansariadi, A., Leder, et al
  2024

- **Multisystem inflammatory syndrome in children (MIS-C) cases by vaccination status in California.** *Vaccine*
  Le Marchand, C., Singson, J. R., Clark, A., Shah, D., Wong, M., Chavez, S., Naguit, M., Nelson, L., Rosen, H., Jain, S., Openshaw, J. J.
  2024; 43 (Pt 1): 126499

- **Mixed methods approach to examining the implementation experience of a phone-based survey for a SARS-CoV-2 test-negative case-control study in California.** *PloS one*
  Fukui, N., Li, S. S., DeGuzman, J., Myers, J. F., Openshaw, J., Sharma, A., Watt, J., Lewnard, J. A., Jain, S., Andrejko, K. L., Pry, J. M.
  2024; 19 (5): e0301070

- **Waning of 2-Dose BNT162b2 and mRNA-1273 Vaccine Effectiveness Against Symptomatic SARS-CoV-2 Infection Accounting for Depletion-of-Susceptibles Bias.** *American journal of epidemiology*
  Andrejko, K. L., Pry, J. M., Myers, J. F., Mehrotra, M., Lamba, K., Lim, E., Fukui, N., DeGuzman, J. L., Openshaw, J., Watt, J., Jain, S., Lewnard, J. A., Covid-Case-Control Study Team, et al
  2023; 192 (6): 895-907

- **Real-world uptake of COVID-19 vaccination among individuals expressing vaccine hesitancy: A registry-linkage study.** *Vaccine*
  Andrejko, K. L., Myers, J. F., Fukui, N., Nelson, L., Zhao, R., Openshaw, J., Watt, J. P., Jain, S., Lewnard, J. A., Pry, J. M.
  2023; 41 (10): 1649-1656

- **Receipt of COVID-19 and seasonal influenza vaccines in California (USA) during the 2021-2022 influenza season.** *Vaccine*
  Andrejko, K. L., Myers, J. F., Openshaw, J., Fukui, N., Li, S., Watt, J. P., Murray, E. L., Hoover, C., Lewnard, J. A., Jain, S., Pry, J. M.
  2023; 41 (6): 1190-1197

- **Predictors of Severe Acute Respiratory Syndrome Coronavirus 2 Infection Following High-Risk Exposure.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
  Andrejko, K. L., Pry, J., Myers, J. F., Openshaw, J., Watt, J., Birkett, N., DeGuzman, J. L., Barbaduomo, C. M., Dong, Z. N., Fang, A. T., Frost, P. M., Ho, T., Javadi, et al
  2022; 75 (1): e276-e288

- **Reported cases of multisystem inflammatory syndrome in children aged 12-20 years in the USA who received a COVID-19 vaccine, December, 2020, through August, 2021: a surveillance investigation.** *The Lancet. Child & adolescent health*
  Yousaf, A. R., Cortese, M. M., Taylor, A. W., Broder, K. R., Oster, M. E., Wong, J. M., Guh, A. Y., McCormick, D. W., Kamidani, S., Schlaudecker, E. P., Edwards, K. M., Creech, C. B., Staat, et al
  2022; 6 (5): 303-312

- **Prevention of Coronavirus Disease 2019 (COVID-19) by mRNA-Based Vaccines Within the General Population of California.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
  Andrejko, K. L., Pry, J., Myers, J. F., Jewell, N. P., Openshaw, J., Watt, J., Jain, S., Lewnard, J. A.
  2022; 74 (8): 1382-1389

- **Effectiveness of Face Mask or Respirator Use in Indoor Public Settings for Prevention of SARS-CoV-2 Infection - California, February-December 2021.** *MMWR. Morbidity and mortality weekly report*
  Andrejko, K. L., Pry, J. M., Myers, J. F., Fukui, N., DeGuzman, J. L., Openshaw, J., Watt, J. P., Lewnard, J. A., Jain, S.
  2022; 71 (6): 212-216

- **Deaths in Children and Adolescents Associated With COVID-19 and MIS-C in the United States.** *Pediatrics*
  McCormick, D. W., Richardson, L. C., Young, P. R., Viens, L. J., Gould, C. V., Kimball, A., Pindyck, T., Rosenblum, H. G., Siegel, D. A., Vu, Q. M., Komatsu, K., Venkat, H., Openshaw, et al
  2021; 148 (5)

- **A planetary health model for reducing exposure to faecal contamination in urban informal settlements: Baseline findings from Makassar, Indonesia.** *Environment international*
  French, M. A., Fiona Barker, S., Taruc, R. R., Ansariadi, A., Duffy, G. A., Saifuddaolah, M., Zulkifli Agussalim, A., Awaluddin, F., Zainal, Z., Wardani, J., Faber, P. A., Fleming, G., Ramsay, et al
  2021; 155: 106679

- **Monitoring of diverse enteric pathogens across environmental and host reservoirs with TaqMan array cards and standard qPCR: a methodological comparison study** *LANCET PLANETARY HEALTH*
  Lappan, R., Henry, R., Chown, S. L., Luby, S. P., Higginson, E. E., Bata, L., Jirapanjawat, T., Schang, C., Openshaw, J. J., O'Toole, J., Lin, A., Tela, A., Turagabeci, et al
  2021; 5 (5): E297-E308

- **Study design, rationale and methods of the Revitalising Informal Settlements and their Environments (RISE) study: a cluster randomised controlled trial to evaluate environmental and human health impacts of a water-sensitive intervention in informal settlements in Indonesia and Fiji.** *BMJ open*
  Leder, K., Openshaw, J. J., Allotey, P., Ansariadi, A., Barker, S. F., Burge, K., Clasen, T. F., Chown, S. L., Duffy, G. A., Faber, P. A., Fleming, G., Forbes, A. B., French, et al
  2021; 11 (1): e042850

- **Monitoring of diverse enteric pathogens across environmental and host reservoirs with TaqMan array cards and standard qPCR: a methodological comparison study.** *The Lancet. Planetary health*
  Lappan, R. n., Henry, R. n., Chown, S. L., Luby, S. P., Higginson, E. E., Bata, L. n., Jirapanjawat, T. n., Schang, C. n., Openshaw, J. J., O'Toole, J. n., Lin, A. n., Tela, A. n., Turagabeci, et al
  2021; 5 (5): e297–e308

- **Inadequate Minority Representation within SARS-CoV-2 Vaccine Trials.** *The American journal of tropical medicine and hygiene*
  Craft, J. F., Travassos, M. A., Foppiano Palacios, C., Openshaw, J. J.
  2020

- **Population-scale longitudinal mapping of COVID-19 symptoms, behaviour and testing.** *Nature human behaviour*
  Allen, W. E., Altae-Tran, H., Briggs, J., Jin, X., McGee, G., Shi, A., Raghavan, R., Kamariza, M., Nova, N., Pereta, A., Danford, C., Kamel, A., Gothe, et al
  2020

- **COVID-19, Quarantines, Sheltering-in-Place, and Human Rights: The Developing Crisis.** *The American journal of tropical medicine and hygiene*
  Openshaw, J. J., Travassos, M. A.
  2020

- **Influenza in U.S. Detention Centers - The Desperate Need for Immunization.** *The New England journal of medicine*
  Foppiano Palacios, C., Openshaw, J. J., Travassos, M. A.

2020

- **COVID-19 outbreaks in U.S. immigrant detention centers: the urgent need to adopt CDC guidelines for prevention and evaluation.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*
  Openshaw, J. J., Travassos, M. A.
  2020

- **Hospital-based zoonotic disease surveillance in Bangladesh: design, field data and difficulties.** *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*
  Das, P., Sazzad, H. M., Aleem, M. A., Rahman, M. Z., Rahman, M., Anthony, S. J., Lipkin, W. I., Gurley, E. S., Luby, S. P., Openshaw, J. J.
  2019; 374 (1782): 20190019

- **Impact of Silver Ion Laundry Treatment on Athletic Gear and Environmental Pathogens and Athlete Health**
  Balachandran, P., Openshaw, J. J.
  LIPPINCOTT WILLIAMS & WILKINS.2019: 286

- **Impact of Silver Ion Laundry Treatment on Athletic Gear and Environmental Pathogens and Athlete Health**
  Balachandran, P., Openshaw, J. J.
  LIPPINCOTT WILLIAMS & WILKINS.2019: 604

- **Structural Equation Modeling (SEM) of Cysticercosis in School-Aged Children in Tibetan Rural Farming Areas of Western China: Implications for Intervention Planning.** *International journal of environmental research and public health*
  Zhou, H., Wang, Q., Zhou, J., Li, T., Medina, A., Felt, S. A., Rozelle, S., Openshaw, J. J.
  2019; 16 (5)

- **Structural Equation Modeling (SEM) of Cysticercosis in School-Aged Children in Tibetan Rural Farming Areas of Western China: Implications for Intervention Planning** *INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH*
  Zhou, H., Wang, Q., Zhou, J., Li, T., Medina, A., Felt, S. A., Rozelle, S., Openshaw, J. J.
  2019; 16 (5)

- **High prevalence of taeniasis and Taenia solium cysticercosis in children in western Sichuan, China.** *Acta tropica*
  Li, T. n., Chen, X. n., Wang, H. n., Openshaw, J. J., Zhong, B. n., Felt, S. A., Ito, A. n., Luby, S. P.
  2019: 105133

- **Prevalence and risk factors for Taenia solium cysticercosis in school-aged children: A school based study in western Sichuan, People's Republic of China** *PLOS NEGLECTED TROPICAL DISEASES*
  Openshaw, J. J., Medina, A., Felt, S. A., Li, T., Huan, Z., Rozelle, S., Luby, S. P.
  2018; 12 (5)

- **Prevalence and risk factors for Taenia solium cysticercosis in school-aged children: A school based study in western Sichuan, People's Republic of China.** *PLoS neglected tropical diseases*
  Openshaw, J. J., Medina, A. n., Felt, S. A., Li, T. n., Huan, Z. n., Rozelle, S. n., Luby, S. P.
  2018; 12 (5): e0006465

- **EVIDENCE CONSISTENT WITH SCHOOL BASED TRANSMISSION OF <it>TAENIA SOLIUM</it> CYSTICERCOSIS IN PRIMARY SCHOOLS, SOUTHWEST CHINA**
  Openshaw, J., Chedid, C., Medina, A., Felt, S., Li, T., Huan, Z., Rozelle, S., Luby, S.
  AMER SOC TROP MED & HYGIENE.2018: 7

- **High prevalence of Taenia solium taeniasis and cysticercosis in Tibetan schoolchildren in western Sichuan, China: a cross-sectional study**
  Li, T., Openshaw, J. J., Chen, X., Medina, A. C., Felt, S. A., Zhou, H., Rozelle, S. D., Luby, S. P.
  ELSEVIER SCIENCE INC.2017: S89

- **TAENIA SOLIUM AND NEUROCYSTICERCOSIS BURDEN AND DECREASED ACADEMIC PERFORMANCE ASSOCIATED WITH BRAIN INFECTION IN SCHOOL AGED CHILDREN, SOUTHWEST CHINA**
  Openshaw, J. J., Medina, A., Felt, S. A., Li, T., Huan, Z., Rozelle, S., Luby, S. P.
  AMER SOC TROP MED & HYGIENE.2017: 139–40

- **Reduction in bacterial contamination of hospital textiles by a novel silver-based laundry treatment** *AMERICAN JOURNAL OF INFECTION CONTROL*
  Openshaw, J. J., Morris, W. M., Lowry, G. V., Nazmi, A.

2016; 44 (12): 1705-1708

- **Bat Hunting and Bat-Human Interactions in Bangladeshi Villages: Implications for Zoonotic Disease Transmission and Bat Conservation.** *Transboundary and emerging diseases*
  Openshaw, J. J., Hegde, S., Sazzad, H. M., KHAN, S. U., Hossain, M. J., Epstein, J. H., Daszak, P., Gurley, E. S., Luby, S. P.
  2016: -?

- **Increased Morbidity and Mortality in Domestic Animals Eating Dropped and Bitten Fruit in Bangladeshi Villages: Implications for Zoonotic Disease Transmission.** *EcoHealth*
  Openshaw, J. J., Hegde, S., Sazzad, H. M., Khan, S. U., Hossain, M. J., Epstein, J. H., Daszak, P., Gurley, E. S., Luby, S. P.
  2016; 13 (1): 39-48

- **Bat hunting and bat-human interactions in Bangladeshi villages: implications for zoonotic disease transmission and bat conservation** *Transboundary & Emerging Disease*
  Openshaw, J. J., et al
  2016

- **Increased morbidity and mortality in domestic animals fed ground and bitten fruit in Bangladeshi villages: implications for bat borne zoonotic disease transmission** *EcoHealth*
  Openshaw, J. J., et al
  2015

- **Rocky mountain spotted fever in the United States, 2000-2007: interpreting contemporary increases in incidence.** *American journal of tropical medicine and hygiene*
  Openshaw, J. J., et al
  2010; 83 (1): 174–182

- **Eczema vaccinatum resulting from the transmission of vaccinia virus from a smallpox vaccinee: an investigation of potential fomites in the home environment** *Vaccine*
  Lederman, E., Miramontes, R., Openshaw, J., et al
  2009; 27 (3): 375-7

- **Human Ehrlichiosis: Clinical and Ecological Challenges** *Southern Medical Journal*
  Openshaw, J. J., Swerdlow, D.
  2007; 100 (8): 769-770

- **Purple Glove Syndrome Following Intravenous Phenytoin Administration** *Vascular Medicine*
  Chokshi, R., Openshaw, J., Mehta, N., Mohler, E.
  2007; 12: 29-31

- **Rickettsia parkeri rickettsiosis and its clinical distinction from Rocky Mountain spotted fever** *Clin Infect Dis.*
  Paddock, C., Finley, R., Wright, C., Robinson, H., Schrodt, B., Lane, C., Ekenna, O., Blass, M., Tamminga, C., Ohi, C., McLellan, S., Goddard, J., Holman, et al
  2006; 47 (9): 1188-96