

**Jon Zelner, PhD**  
**Assistant Professor, Dept. of Epidemiology**  
Center for Social Epidemiology and Population Health  
2667 SPH Tower  
1415 Washington Heights, Ann Arbor, MI 48109  
734-647-9755  
[jzelner@umich.edu](mailto:jzelner@umich.edu)  
lab website: [epibayes.io](http://epibayes.io)

## EDUCATION AND TRAINING

- Ph.D.                    **University of Michigan, Ann Arbor.** Sociology and Public Policy. 3/2011.  
Dissertation title: *Understanding infectious disease transmission at three levels: Household, Community, and Region.*
- M.S.W.                **Washington University in St. Louis.** Social Work.  
Concentration in health and social development. 9/2005.
- B.A.                    **Haverford College.** Sociology. 9/2003.

## POSITIONS AND APPOINTMENTS

- 1/2017-Present      **Assistant Professor, Dept. of Epidemiology, University of Michigan School of Public Health.**
- 1/2017-Present      **Core Faculty Member, Center for Social Epidemiology and Population Health, UM Dept. of Epidemiology.**
- 9/2020-Present      **Core Faculty Member, Michigan Influenza Center, UM Dept. of Epidemiology.**
- 1/2017-Present      **Faculty Affiliate, Center for the Study of Complex Systems, University of Michigan.**
- 1/2017-Present      **Faculty Affiliate, Michigan Institute for Data Science (MIDAS), University of Michigan.**
- 4/2017-Present      **Faculty Affiliate, Michigan Institute for Computational Discovery and Engineering, University of Michigan.**
- 9/2016-12/2016      **Postdoctoral Fellow, Dept. of Epidemiology of Microbial Diseases, Yale School of Public Health in the lab of Prof. Ted Cohen.**

- 9/2014-9/2016 **Health and Society Scholar, Robert Wood Johnson Foundation Health and Society Scholars Program** at Columbia University.
- 9/2011-9/2014 **NIH Fogarty International Center, Research and Policy for Infectious Disease Dynamics (RAPIDD) Postdoctoral Research Associate** in the lab of Prof. Bryan Grenfell, Princeton University, Dept. of Ecology and Evolutionary Biology.

## GRANTS

- 8/2020-7/2025 PI, *Data driven transmission models to optimize influenza vaccination and pandemic mitigation strategies*. CDC NCIRD U01 IP001138-01 (Total direct costs 2020-21: \$238,568)
- 8/2020-7/2022 PI, *COVID-19 Supplement to CDC NCIRD U01 IP001138-0: Data driven transmission models to optimize influenza vaccination and pandemic mitigation strategies*. (DC 2020-2021: \$275,683)
- 7/2020-6/2022 PI, *Adaptive targeted testing to maximize the yield of COVID-19 contact tracing*. Simons Foundation. (DC 2020-21: \$294,380)
- 6/2020-5/2025 Co-I (Lauring PI), Evolution and transmission of influenza virus in natural human infection. NIAID R01.
- 1/2020-12/2022 Co-I/UM Sub PI (Basta PI), Quantifying the Breadth and Duration of Immunity Induced by Meningococcal B Vaccines.
- 3/2020-3/2025 Co-I (Snitkin/Popovich Co-PIs), A multi-level genomic and spatial analysis of MRSA transmission. NIH/NIAID. (1R01AI146079-01A1)
- 1/2020-12/2024 Co-I/UM Sub PI (Remais PI), Integrating epidemiologic and environmental approaches to understand and predict *Coccidioides* exposure and coccidioidomycosis emergence. (R01AI148336)
- 8/1/19-7/31/20 PI, *Models for spatially-targeted Tuberculosis screening in New York City*, UM MICHR Pathway Award. (\$50,000)
- 8/1/19-7/31/20 PI, *Simulation-based discovery of methods for target infectious disease screening*, Michigan Institute for Computational Discovery and Engineering (MICDE) Catalyst award. (\$90,000)
- 3/2019-2/2024 Co-I (Schroeder, Dowdy Co-PIs), *Understanding and improving the effectiveness of public health laboratory networks for infectious diseases in Ghana*. NIH NIAID (R01AI136977)

- 2/2019-1/2021 Co-I (Needham PI), *Social Media and the Flint Water Crisis*. University of Michigan MCubed Mini-Cube (\$15,000)
- 2/2019-8/2019 PI, *Understanding the spatial dynamics of Tuberculosis infection risk in Sichuan Province, China*. UM SPH Office of Global Public Health Seed Grant. (\$7,500)
- 12/2018-11/2020 PI, *How is influenza vaccine response related to household transmission risk?* University of Michigan MCubed Classic Cube.
- 9/2018-8/2021 Co-I (Needham PI), *Maternal exposure to vicarious structural racism and newborn health disparities in Michigan: The Flint Water Crisis*. NIH NIMHD (R21MD012683)
- 2/2018-9/2019 PI, *Methods for privacy-first obfuscation of potentially identifiable spatial epidemiologic data*. rOpenSci Foundation. (\$50,000)

## SELECTED PENDING GRANTS

PI. *Systems modeling to address the social and biological drivers of disparities in infection and mortality from emerging infectious diseases*. NIH R01 application submitted in response to NIMHD Notice of Special Interest on [Simulation Modeling and Systems Science to Address Health Disparities](#). Submitted 6/2021, scheduled for review 11/2021.

## PEER REVIEW SERVICE

Occasional reviewer for: *Proceedings of the National Academy of Sciences, Science, Nature Scientific Reports, Public Health Reports, American Journal of Epidemiology, International Journal of Epidemiology, Epidemiology, PLOS Neglected Tropical Diseases, PLOS Pathogens, PLOS Computational Biology, Journal of the Royal Society Interface, Emerging Infectious Diseases, BMC Public Health, BMC Infectious Disease, Risk Analysis, Open Forum Infectious Diseases and others*.

I have also served on grant review panels for the U.K. Medical Research Council (2018), U.S. Centers for Disease Control and Prevention (2019), Tel Aviv University (2021), as well as internal grant reviews for MICHR, MIDAS and MICDE at UM (2019,2020).

## TEACHING

- Fall 2021 EPID 592: "Introduction to Spatial Epidemiology", University of Michigan School of Public Health Online MPH (1cr of 3cr course; co-taught with Pete Larson)

Winter 2021	EPID 594: "Introduction to Spatial Analysis", University of Michigan School of Public Health Online MPH (2cr)
Fall 2020	PUBHLTH 405: "Social Epidemiology of Infectious Disease", University of Michigan School of Public Health. (3cr)
Fall 2020	EPID 592: "Introduction to Spatial Epidemiology", University of Michigan School of Public Health Online MPH (1cr of 3cr course; co-taught with Pete Larson)
Winter 2020	EPID 684: "Theory and Applications of Spatial Epidemiology", University of Michigan School of Public Health. (3cr)
Fall 2019	PUBHLTH 405: "Social Epidemiology of Infectious Disease", University of Michigan School of Public Health. (3cr)
Winter 2019	EPID 684: "Theory and Applications of Spatial Epidemiology", University of Michigan School of Public Health. (3cr)
Fall 2018	PUBHLTH 405: "Social Epidemiology of Infectious Disease", University of Michigan School of Public Health. (3cr)
Winter 2018	EPID 684: "Theory and Applications of Spatial Epidemiology", University of Michigan School of Public Health. (3cr)

### **SELECTED MENTORSHIP ACTIVITIES**

- 9/2017 – Present Co-Mentor/Dissertation Co-Chair for UM Statistics PhD student Rob Trangucci.
- 9/2018 – Present Doctoral advisor/Dissertation Co-Chair to UM Epidemiology PhD student Ramya Naraharisetti.
- 9/2019 – Present Doctoral advisor/Dissertation Chair to UM Epidemiology PhD student Kelly Broen.
- 9/2021 – Present Doctoral advisor to UM Epidemiology PhD student Hannah Steinberg

In addition, I currently serve on the dissertation committees of 4 additional UM PhD students, and as an external member for an epidemiology PhD student at Emory University.

### **DEPARTMENTAL/SCHOOL SERVICE**

- 9/2021 – Present Co-track leader/advisor to first-year General Epidemiology MPH students.
- 9/2020 – 4/2021 Co-track leader/advisor to first-year General Epidemiology MPH students.

- Summer 2020 Member of ad hoc advisory committee to UM SPH Dean F. Dubois Bowman on the state and university response to the COVID-19 pandemic.
- 9/2019 – Present Member of UM Epidemiology MPH Committee.
- Fall 2019 Member of Epidemiology clinical faculty search committee.
- Winter 2019 Member of Epidemiology instructional track faculty search committee.
- 9/2017 – 6/2019 Member of UM Epidemiology Doctoral Committee.

## EXTERNAL SERVICE

- 11/2021 Peer-reviewer for upcoming NIH Special Emphasis Panel on *Research in Vaccine Hesitancy and Uptake*.
- 4/2021 – Present External mentor for the NIH F32 postdoctoral award to Katherine Robsky, PhD in the Dept. of Epidemiology at the Johns Hopkins Bloomberg School of Public Health.
- 4/2020 – Present Developed and maintained the website *covidmapping.org* in collaboration with MDHHS as a resource for residents of the State of Michigan to understand spatial patterns of COVID-19 incidence statewide. Our maps and research have also been presented as part of the Governor’s daily COVID-19 briefing, as well as to the Lt. Governor’s task force on racial disparities in COVID-19 outcomes.
- 12/2019 – Present External member of dissertation committee for Carly Adams, MPH in the Dept. of Epidemiology at the Rollins School of Public Health at Emory University.
- 4/2019 Peer-reviewer for CDC NCIRD Special Emphasis Panel on *Influenza Transmission Modeling and Forecasting*.

## PUBLIC ENGAGEMENT

“Teaching Infectious Disease History in 2020.” Blog post for UM SPH’s flagship blog *The Pursuit*. Published February 4, 2021. <https://sph.umich.edu/pursuit/2021posts/teaching-infectious-disease-history-in-2020.html>

“Smoothing! An interactive tutorial approach to univariate and spatial interpolation.” Interactive tutorial. Published 2021. <https://sph-umich.shinyapps.io/smoothing>

*“Likelihood and model fit: A visual tour.” Interactive tutorial. Published 2021. <https://sph-umich.shinyapps.io/modelfit>*

*“A mechanistic framework for understanding how residential segregation drives infection disparities.” Interactive tutorial. Published 2021. <https://sph-umich.shinyapps.io/segregation-transmission/>*

*“How does residential segregation impact infection risk? An interactive exploration.” Interactive tutorial & preprint. Published 2021. <https://sph-umich.shinyapps.io/segregation-transmission/>*

## **MEDIA COVERAGE AND INTERVIEWS**

Throughout the COVID-19 pandemic, I have had the opportunity to engage with local, national and international media both to comment on the course of the COVID-19 pandemic and to share my research. Examples of coverage highlighting research and expertise in my group include:

[How vaccine loopholes could weaken covid shot mandates for kids.](#) Print interview for *Education Week*. 9/28/2021.

[Michigan passes one million COVID-19 cases. Where does the pandemic go from here?](#) Print and radio interview covering original research done in collaboration with UM PhD student Nina Masters, for *Michigan Radio*, 9/24/2021.

[Here’s what the 12 biggest school districts are \(and aren’t\) doing about COVID.](#) Print and radio interview for *Michigan Radio*.

[Evolution of a Pandemic: Where does Delta leave us?](#) Interview for UM SPH *Population Healthy* podcast, 9/15/2021.

[Despite state rule, childhood vaccine waivers are rising again.](#) Print and radio interview for *Michigan Radio*, 9/12/2021.

[How public health and prisons are intertwined.](#) Print interview on *michiganradio.org*. 3/30/2021.

[Michigan Medicine gives 200 Johnson & Johnson vaccine doses to county health department.](#) Comments to *The Michigan Daily*. 3/16/2021.

[Michigan prisons near ‘herd immunity’ but coronavirus variant poses new threat.](#) Comments to *mlive.com*. 2/20/2021

[Retailers push to inoculate workers with COVID-19 vaccines.](#) Comments to *Business Insider*. 2/5/2021.

[Do Curfews slow the Coronavirus?](#) Comments to the *New York Times*. 1/26/2021.

[Why are racial disparities in Michigan's COVID-19 cases and deaths shrinking?](#) Comments to the *Detroit Free Press*. 1/22/2021.

[Social Inequities Explain Racial Gaps in Pandemic, Studies Find.](#) *New York Times* article featuring published research from my group on racial disparities in COVID-19 mortality in Michigan. 12/9/2020.

[Researchers Estimate Trump Rallies Led to 30,000 Coronavirus Cases and 700 Deaths.](#) Comments to *HuffPost.com*. 10/31/2020.

[Why Outbreaks Can Still Happen, Even if Most People Get Vaccinated — Study.](#) *Inverse* article featuring results from senior-author publication in PNAS led by UM PhD student Nina Masters. 10/26/2020.

[Governors Ask How Vaccines Will Be Distributed.](#) Comments to *New York Times*. 10/20/2020.

[Racial disparity in Michigan COVID cases evens out.](#) Comments to *Deadline Detroit*. 9/25/2020.

[Michigan's racial disparity disappears in new virus cases.](#) Comments to the *Detroit News*. 9/24/2020.

[Why does Donald Trump put supporters at risk with massive rallies? 'It's political'](#) Comments to *The Toronto Star*. 9/15/2020

[Michigan youths have died of coronavirus, despite state withholding data.](#) Comments to *mlive.com*. 9/12/2020.

['Our Biggest Fear': What Outbreaks on 3 Campuses Say About the Pandemic This Fall.](#) Comments in the *Chronicle of Higher Education*. 8/31/2020.

[Are Michigan gyms safe during coronavirus? A study in Norway suggests yes.](#) Comments to *Bridge Michigan*. 6/26/2020.

[In Norway, gymgoers avoid infections as virus recedes.](#) Comments in the *New York Times* 6/25/2020.

[Social scientists on COVID-19.](#) Comments to *Inside Higher Ed*. 5/26/2020.

[This end to COVID-19 lockdowns could only have been made in America.](#) Comments to *The Toronto Star*. 5/8/2020.

[Did Closing Schools Actually Help? Researchers have a plan to find out.](#) Comments to the *New York Times* on the impact of school closures on the COVID-19 pandemic. 5/2/2020

[From the editor: In pandemic, we must report who is dying and why.](#) Comments to *The Detroit News*. 4/15/2020.

[Why Are Some People So Much More Infectious Than Others?](#), Comments in the *New York Times*. 4/12/2020.

[Detroit is banking on mass testing to get through COVID-19. Here's why we need it.](#) Comments to *Michigan Radio*. 4/8/2020.

[What lessons can Italy teach the U.S. about the coronavirus?](#), On-camera interview on *CBS Sunday Morning*, 4/5/2020.

['It's a mess': Coronavirus pandemic exposes New York City's vulnerabilities.](#) Comments on *abcnews.com*. 3/28/2020

[Hamtramck backs off after ordering grocers to cover produce in plastic amid pandemic.](#) Comments to the *Detroit Free Press*. 3/28/2020.

[What Made New York So Hospitable for the Coronavirus?](#) Comments to the *New York Times*. 3/26/2020.

[Why some people are more vulnerable to catching coronavirus.](#) Comments to *nationalgeographic.com*. 3/13/2020.

I have also had the opportunity to provide on-air commentary to *Michigan Radio* and *SKY News* in the UK.

## **PROFESSIONAL PRESENTATIONS**

Invited speaker for panel entitled “Building Software in a Pandemic” at *Good Tech Fest* conference on technological innovation in the non-profit/governmental sector. May 19, 2021. (Held online due to COVID-19)

“Where models meet morality: How can infectious disease transmission models address disparities in COVID-19 outcomes?” Dept. of Epidemiology lunchtime seminar series, University of Michigan School of Public Health. March 11, 2021.

“What is the role of residential segregation in driving socioeconomic and racial inequality in COVID-19 mortality?” Invited speaker for meeting of the University of Texas – Austin COVID-19 modeling consortium. March 10, 2021.

“Where models meet morality: What is the role of complexity science in addressing disparities in COVID-19 incidence and mortality?” Invited speaker for University of Michigan Center for the Study of Complex Systems lunchtime seminar series. March 9, 2021.



“Disentangling the spatial and social dimensions of COVID-19 mortality in Michigan.” Invited speaker for Spatial Methods Workshop at Johns Hopkins Bloomberg School of Public Health Dept. of Epidemiology (video presentation due to COVID-19). February 23, 2021.

“Spatial and social dimensions of inequality in COVID-19 mortality in Michigan.” Invited speaker for meeting of the COVID-19 Mobility Consortium. June 8, 2020.

“Mitigating the impact of observation bias in models of infectious disease transmission.” Conference on Multiple Regression with Poststratification. Columbia University Dept of Statistics. New York, NY (invited speaker; video presentation due to COVID-19). April 4, 2020.

“The outbreak ended, but did the intervention work?”, Annual meeting of the NIH *Models of Infectious Disease Agent Studies (MIDAS)* program, Bethesda MD. May 2019.

“The outbreak ended, but did the intervention work?”, Annual meeting of the Society for Epidemiologic Research, Minneapolis MN. May 2019.

“Household-based targeting of tuberculosis interventions slows community spread.” *Epidemics*7 conference on infectious disease dynamics. Charleston, SC. Poster. December 3-6 2019. (Poster presented by former UM PhD student Joshua Havumaki)

“Longitudinal antibody waning and boosting dynamics following serial influenza vaccination.” Centers of Excellence for Influenza Research and Surveillance (CEIRS) Scientific Advisory Board Meeting. Memphis, TN. Poster. June 5, 2018. (Co-first author with Joshua Petrie)

“Methods for privacy-first reproducibility with spatial epidemiologic data.” Invited participant, rOpenSci Unconference, Seattle, WA. May 20-22, 2018.

“Developing household- and spatially-targeted interventions to reduce TB risk in Lima, Peru.” Invited speaker, Lunchtime Seminar Series, Dept. of Epidemiology, Harvard T.H. Chan School of Public Health. Boston, MA. May 17, 2018.

“Disentangling neighborhood-level and household-based TB transmission in Lima, Peru”. Invited speaker, 2017 TB Modeling and Analysis Consortium (TB-MAC) Meeting, Glion, Switzerland. Sept. 20-22, 2017.

“Tuberculosis as a symptom of stratification: Understanding racial disparities in TB mortality in the 20<sup>th</sup> century United States”. Invited speaker, Infectious Disease Epidemiology Seminar, Dornsife School of Public Health, Drexel University. February 5, 2016.

“Using spatial and genetic data to understand spatial clustering of multi-drug resistant tuberculosis in Lima, Peru”. Invited speaker, Infectious Disease Modeling Seminar, Yale School of Public Health. February 6, 2015.

## **OPEN-SOURCE SCIENTIFIC SOFTWARE**

*hotspotr*: An R toolkit for the detection of disease hotspots using distance-based mapping. Source code and documentation available at <https://jzelner.gitlab.io/hotspotr>. (Published 2014)

**PEER-REVIEWED MANUSCRIPTS (30 during time-in-rank; 9 senior/co-senior, 7 first/co-first, 3 second author)** (\*Authors contributed equally, †UM graduate student co-author)

1. Ali T<sup>†</sup>, Anotonucci T... **Zelner JL**,..., Mendes de Leon, C. Multidimensional Social Network Types and Their Correlates in Older Americans. Accepted for Publication in *Innovation in Aging* 10/2021.
2. **Zelner JL**, Riou J, Etzioni R, Gelman A. (2021). Accounting for Uncertainty During a Pandemic. *Patterns* 2(8): 100310.
3. Andrus E<sup>†</sup>, Mojola S, Moran E<sup>†</sup>, Eisenberg MC, **Zelner JL**. (2021). Understanding the temporal, gendered and hierarchical dimensions of wealth and HIV risk in Sub-Saharan Africa. *Social Science and Medicine – Population Health*:100833
4. Masters NB<sup>†</sup>, **Zelner JL**, Delamater PL, Hutton D, Kay M, Eisenberg MC. (2021). Assessing the Impact of Michigan's Administrative Rule Change on Non-Medical Vaccine Exemptions. *Pediatrics*. 148(3): e2021049942;
5. Heaney AK, Head JR, Broen K<sup>†</sup>, ..., **Zelner JL**, Remais J. (2021). Coccidioidomycosis and COVID-19 Co-Infection, United States, 2020. *Emerging Infectious Diseases*. 27(5). doi:[10.3201/eid2705.204661](https://doi.org/10.3201/eid2705.204661)
6. Havumaki J<sup>†</sup>, Cohen T, Zhai C<sup>†</sup>, Miller JC, Guikema SD, Eisenberg MC, **Zelner JL**. (2021). Protective impacts of household-based tuberculosis contact tracing are robust across endemic incidence levels and community contact patterns. *PLOS Computational Biology*. 17(2):e1008713.
7. Broen K<sup>†</sup>, Trangucci R<sup>†</sup>, **Zelner JL** (2021). Measuring the impact of spatial perturbations on the relationship between data privacy and validity of descriptive statistics. *International Journal of Health Geographics*. 20(3).
8. Kubale J<sup>†</sup>, Balmaseda A, Sanchez N, Gresh L, Ojeda S, Harris E, Kuan G, **Zelner JL\***, Gordon A\*. (2021). Pneumonia following symptomatic influenza infection among Nicaraguan children before and after introduction of the pneumococcal conjugate vaccine. *The Journal of Infectious Diseases*. Published online December 2020;(jiaa776). doi:[10.1093/infdis/jiaa776](https://doi.org/10.1093/infdis/jiaa776)
9. Masters NB<sup>†</sup>, Delamater P, Boulton M, **Zelner JL** (2021). Measuring Multiple Dimensions and Indices of Non-Vaccination Clustering in Michigan: 2008-2018. *American Journal of Epidemiology*. 190(6):1113-1121.

10. **Zelner JL**, Trangucci R<sup>†</sup>, Naraharisetti R<sup>†</sup>, Cao A., Malosh R, Broen K<sup>†</sup>, Masters N<sup>†</sup>, Delamater P. (2021). Racial disparities in COVID-19 mortality are driven by unequal infection risks. *Clin Infect Dis*. Published online December 2020.
11. Masters NB<sup>†</sup>, Eisenberg MC, Delamater PL, Kay M, Boulton ML\*, **Zelner JL\*** (2020). Fine-scale spatial clustering of measles nonvaccination that increases outbreak potential is obscured by aggregated reporting data. *PNAS*. 117(45): 28506-28514 doi:[10.1073/pnas.2011529117](https://doi.org/10.1073/pnas.2011529117).
12. Cheng Q, Trangucci R, Nelson KN, ..., **Zelner JL**, Remais JV (2020). Prenatal and early-life exposure to the Great Chinese Famine increased the risk of tuberculosis in adulthood across two generations. *PNAS*. 117(44):27549-27555 doi:[10.1073/pnas.2008336117](https://doi.org/10.1073/pnas.2008336117)
13. Contreras J<sup>†</sup>, Trangucci R<sup>†</sup>, ..., **Zelner JL\***, Eisenberg JNS\*. Spatial risk of diarrheal disease associated with household proximity to untreated wastewater used for irrigation in the Mezquital Valley, Mexico. (2020). *Environmental Health Perspectives*. 128(7).
14. Kubale J, Kuan G, Gresh L, ..., **Zelner JL\***, Gordon A\*. (2020). Individual-level Association of Influenza Infection With Subsequent Pneumonia: A Case-control and Prospective Cohort Study. *Clinical Infectious Diseases*. doi:[10.1093/cid/ciaa1053](https://doi.org/10.1093/cid/ciaa1053)
15. Cheng Q, Collender PA, Heaney AK...**Zelner JL**,...Remais JV. (2020). The DIOS framework for optimizing infectious disease surveillance: Numerical methods for simulation and multi-objective optimization of surveillance network architectures. *PLOS Computational Biology*. 16(12):e1008477. doi:[10.1371/journal.pcbi.1008477](https://doi.org/10.1371/journal.pcbi.1008477)
16. Gunasekera KS, **Zelner JL**, Becerra MC, et al. Children as sentinels of tuberculosis transmission: disease mapping of programmatic data. *BMC Med*. 2020;18(1):234. doi:[10.1186/s12916-020-01702-x](https://doi.org/10.1186/s12916-020-01702-x)
17. Brouwer AF, **Zelner JL**, Eisenberg MC, Kimmins L, Ladisky M, Collins J, Eisenberg JNS. The impact of vaccination efforts on the spatiotemporal patterns of the Hepatitis A outbreak in Michigan, 2016-2018. *Epidemiology*. 2020; 31(5):628-635.
18. Crawford FW, Marx FM, **Zelner JL**, Cohen T. (2020). Transmission modeling with regression adjustment for analyzing household-based studies of infectious disease: application to tuberculosis. *Epidemiology*. 31(2), 238-247.
19. **Zelner JL**, Adams C, Havumaki J<sup>†</sup>, Lopman B. (2020). Understanding the importance of contact heterogeneity and variable infectiousness in the dynamics of a large Norovirus outbreak. *Clinical Infectious Diseases*. 70(3), 493-500.
20. Li T, Chenq Q, ..., **Zelner JL**, ..., Remais JV. (2019). Evidence for heterogeneity in China's progress against pulmonary tuberculosis: Uneven reductions in a major center of ongoing transmission, 2005-2017. *BMC Infectious Diseases*. 19(1).

21. **Zelner JL\***, Petrie G\*, Trangucci R†, Martin ET, Monto AS. Effects of sequential Influenza A(H1N1)pdm09 vaccination on antibody waning. (2019). *Journal of Infectious Diseases.*, doi: 10.1093/infdis/jiz055.
22. Malosh RE, Noppert GA, **Zelner JL**, Martin E, Monto A. (2019). Social patterning of acute respiratory infections in the Household Influenza Vaccine Evaluation (HIVE) Study, 2014-2015. *Epidemiology & Infection.*
23. Noppert GA, Malosh RE, Moran EB†, Ahuja S, **Zelner JL**. (2018). Contemporary social disparities in TB infection and disease in the USA: A review. *Current Epidemiology Reports.* 5(4): 442-449.
24. Lee GO, Surkan PJ, **Zelner JL**, Olórtegui MP, Yori PP, Ambikapathi R, Caulfield LE, Gilman RH, Kosek MN. (2018). Social connectedness is associated with food security among peri-urban Peruvian Amazonian communities. *Social Science & Medicine – Population Health.* 4:254-262.
25. Warren JL, Grandjean L, Moore DAJ, Lithgow A, Coronel J, Sheen P, **Zelner JL**, Andrews JR, Cohen T. (2018). Investigating spillover of multidrug resistant tuberculosis from a prison: A spatial and molecular epidemiological analysis. *BMC Medicine.* 16(1):122
26. Dalziel BD, Lau MSY, Tiffany A, McClelland A, **Zelner JL**, Bliss JR, Grenfell BT. (2018). Unreported cases in the 2014-2015 Ebola epidemic: Spatiotemporal variation, and implications for estimating transmission. *PLOS Neglected Tropical Diseases.* 12(1):e0006161.
27. **Zelner JL**, Murray MB, Becerra MC, Galea J, Lecca L, Calderon R, Yataco R, Zhang Z, Manjourides J, Cohen T. (2018). Protective effects of household-based TB interventions are robust to neighborhood-level variation in exposure risk in Lima, Peru: A model-based analysis. *International Journal of Epidemiology.* 47(1):185-192.
28. Lau MSY, Gibson GJ, Adrakey H, McClelland A, Riley S, **Zelner JL**, Streftaris G, Funk S, Metcalf CJE, Dalziel BD, Grenfell BT. (2017). A mechanistic spatio-temporal framework for modelling individual-to-individual transmission - with an application to the 2014-2015 West Africa Ebola outbreak. *PLOS Computational Biology.* 13(10):e1005798.
29. **Zelner JL**, Muller C, Feigenbaum J. (2017). Racial inequality in the annual risk of Tuberculosis infection in the United States: 1910-1933. *Epidemiology & Infection.* 145(9):1797-1804.
30. **Zelner JL**, Murray MB, Becerra MC, Galea J, Lecca L, Calderon R, Yataco R, Zhang Z, Manjourides J, Grenfell BT, Cohen T. (2016). Linking spatial and molecular genetic

data to identify hotspots of transmitted multidrug-resistant tuberculosis: a prospective cohort study. *Journal of Infectious Diseases*. 213(2):287-294.

31. Morris SE\*, **Zelner JL\***, Fauquier DA, Rowles TK, Rose PE, Gulland F, Grenfell BT. (2015). Partially observed epidemics in wildlife hosts: modelling an outbreak of dolphin morbillivirus in the northwestern Atlantic, June 2013–2014. *Journal of the Royal Society Interface*. 12(112). (\*Authors contributed equally.)
32. Thompson C\*, **Zelner JL\*** Hoang Nhu TD, Phan MV Le Phuc H, Hung NT, Duong VT, Ngoc NM, Tuan HM Tu VHT, Vi LL, Chau NVV, Hien TT, von Clemm E, Storch H, Thwaites G, Grenfell BT, Baker S. (2015). Modeling the impact of environmental and climatic variation on the spatiotemporal trends of hospitalized pediatric diarrhea in Ho Chi Minh City, Vietnam. *Health and Place*. 35:147-154. (\*Authors contributed equally.)
33. Faust C, **Zelner JL**, Brasseur P, Valliant M, Grenfell BT, Metcalf CJ, Olliaro P. (2015). Modeling behavioral, environmental and epidemiological factors that influence the uptake of ‘Test and Treat’ policies for malaria in a rural district of southwestern Senegal. *The American Journal of Tropical Medicine and Hygiene*. 93(1): 159–167.
34. **Zelner JL**, Murray MB, Becerra MC, Galea J, Lecca L, Calderon R, Yataco R, Zhang Z, Grenfell BT, Cohen T. (2014). Age-specific risks of tuberculosis infection from household- and community-exposures suggest opportunities for interventions in a high-burden setting. *American Journal of Epidemiology*. 180(8):853-861.
35. **Zelner JL**, Murray MB, Becerra MC, Galea J, Lecca L, Calderon R, Yataco R, Zhang Z, Grenfell BT, Cohen T. (2014). Protective effects of Bacillus Calmette-Guerin vaccination and isoniazid preventive therapy among the household contacts of diagnosed tuberculosis cases: A cohort study. *American Journal of Respiratory and Critical Care Medicine*, 189(7):853-859.
36. **Zelner JL**, Lopman BA, Hall AJ, Ballesteros S, Grenfell BT. (2013). Linking Time-Varying Symptomatology and Intensity of Infectiousness to Patterns of *Norovirus* Transmission. *PLOS One*. 8(7):e68413.
37. Milbrath MO, Spicknall I, **Zelner JL**, Moe CL, Eisenberg, JNS. (2013). Infectiousness duration heterogeneity and population outbreak risk: A systematic review of long-term viral shedding in *Norovirus* infection. *Epidemiology and Infection*, 141(8):1572-84.
38. **Zelner JL**, Trostle J, Goldstick JE, Cevallos W, House, JS, Eisenberg JNS. (2012). Social connectedness and disease transmission: social organization, cohesion, village context, and infection risk in rural Ecuador. *American Journal of Public Health*, 102(12):2233-2239.
39. Katz, DM, Gubler J, **Zelner JL**, Provins E, Ingall E. (2011). Reproduction of Hierarchy? A Social Network Analysis of the American Law Professoriate. *Journal of Legal Education*, 61(1):76-105.

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