

A sampling of the 2022-2023 Global Public Health and the Common Good published faculty research

Carey, N. & **Coley, R. L.** (2022). Prevalence of adolescent handgun carriage: 2002-2019. *Pediatrics*, 149(5):e2021054472. <https://doi.org/10.1542/peds.2021-054472>

**Coley, R. L.** & Baum, C. (2022). Trends in mental health symptoms, service use, and unmet need for services among US adults through the first nine months of the COVID-19 pandemic. *Translational Behavioral Medicine*, 12, 273-283. <https://doi.org/10.1093/tbm/ibab133>

**Coley, R. L.**, Carey, N., Baum, C. F., & Hawkins, S. S. (2022). COVID-19 related stressors and mental health disorders among US adults. *Public Health Reports*, 137, 1217–1226. <https://doi.org/10.1177/00333549221120451>

**Coley, R. L.**, Spielvogel, B., Hwang, D., Lown, J., & Teixeira, S. (2022). Did HOPE VI move communities to opportunity? How public housing redevelopment affected neighborhood poverty, racial composition, and resources 1990-2016. *Housing Policy Debate*. <https://doi.org/10.1080/10511482.2022.2121614>

**Hawkins, S.**, Kruzik, C., O'Brien, M., & **Coley, R. L.** (2022). Flavored tobacco product restrictions in Massachusetts associated with reductions in adolescent cigarette and e-cigarette use. *Tobacco Control*, 31, 576-579. doi:10.1136/tobaccocontrol-2020-056159

Sims, J. & **Coley, R. L.** (2022). Examining economic risks in adolescents' families, neighborhoods, and schools: Implications for mental and behavioral health in early adulthood. *Journal of Adolescent Health*, 70, 774-780. doi: 10.1016/j.jadohealth.2021.11.020.

Delgado-Ortiz L, Carsin AE, Merino J, Cobo I, Koch S, Goldberg X, Chevance G, Bosch de Basea M, Castaño-Vinyals G, Espinosa A, Carreras A, Cortes Martínez B, **Straif K**, de Cid R, Kogevinas M, Garcia-Aymerich J. Changes in Population Health-Related Behaviors During a COVID-19 Surge: A Natural Experiment. *Ann Behav Med*. 2023 Apr 5;57(3):216-226. doi: 10.1093/abm/kaac054. PMID: 36394497; PMCID: PMC10074031.

**David A. Wirth**, The Multilateral Climate Regime, in *Global Climate Change and U.S. Law* 33-71 (American Bar Association: 3d ed. Edited by Michael B Gerrard, Jody Freeman & Michael Burger eds. 2023), <<https://www.americanbar.org/products/inv/book/427734122/>>.

Noah M. Sachs, **David A. Wirth** & Adam Abelkop, “International law governing chemical risk assessment and management” in *Chemical Risk Governance* 203-224 (Adam Abelkop, Lucas Bergkamp, Lynn L Bergeson, & Bethami Auerbach eds., Edward Elgar Publishing Co. 2023). <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4390592](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4390592)>

Elsworth B, Keroack C, Rezvani Y, Paul A, Barazorda K, Tennessen J, Sack S, Moreira C, **Gubbels MJ**, Meyers M, Zarringhalam K, Duraisingh M. *Babesia divergens* egress from host cells is orchestrated by essential and druggable kinases and proteases. *Res Sq [Preprint]*. 2023 Feb 28:rs.3.rs-2553721. doi: 10.21203/rs.3.rs-2553721/v1. PMID: 36909484; PMCID: PMC10002801.

Duraisingh MT, Gubbels MJ, Zarringhalam K. A rising tide of parasite transcriptomics propels pathogen biology. *PLoS Biol.* 2023 Jan 25;21(1):e3001997. doi: 10.1371/journal.pbio.3001997. PMID: 36696650; PMCID: PMC9876607.

Rezvani Y, Keroack CD, Elsworth B, Arriojas A, Gubbels MJ, Duraisingh MT, Zarringhalam K. Comparative single-cell transcriptional atlases of *Babesia* species reveal conserved and species-specific expression profiles. *PLoS Biol.* 2022 Sep 22;20(9):e3001816. doi: 10.1371/journal.pbio.3001816. PMID: 36137068; PMCID: PMC9531838.

Engelberg K, Bechtel T, Michaud C, Weerapana E, Gubbels MJ. Proteomic characterization of the *Toxoplasma gondii* cytokinesis machinery portrays an expanded hierarchy of its assembly and function. *Nat Commun.* 2022 Aug 8;13(1):4644. doi: 10.1038/s41467-022-32151-0. PMID: 35941170; PMCID: PMC9360017.

Nasuhidehnavi A, Zhao Y, Punetha A, Hemphill A, Li H, Bechtel TJ, Rager T, Xiong B, Petrou VI, Gubbels MJ, Weerapana E, Yap GS. A Role for Basigin in *Toxoplasma gondii* Infection. *Infect Immun.* 2022 Aug 18;90(8):e0020522. doi: 10.1128/iai.00205-22. Epub 2022 Aug 1. PMID: 35913173; PMCID: PMC9387297.

Gubbels MJ, Ferguson DJP, Saha S, Romano JD, Chavan S, Primo VA, Michaud C, Coppens I, Engelberg K. *Toxoplasma gondii*'s Basal Complex: The Other Apicomplexan Business End Is Multifunctional. *Front Cell Infect Microbiol.* 2022 Apr 29;12:882166. doi: 10.3389/fcimb.2022.882166. PMID: 35573773; PMCID: PMC9103881.

Maugans, C. 1 ; Loveday, M. 2 ; Hlangu, S. 2 ; Waitt, C. 3 ; Van Schalkwyk, M. 4 ; van de Water, B. 5 ; Salazar-Austin, N. 6 ; McKenna, L. 7 ; Mathad, J. S. 8 ; Kalk, E. 9 ; Hurtado, R. 10 ; Hughes, J. 11 ; Eke, A. C. 12 ; Ahmed, S. 13 ; Furin, J. 14 ;  
The International Journal of Tuberculosis and Lung Disease, Volume 27, Number 5, 1 May 2023, pp. 357-366(10), Authors: Maugans, C. 1 ; Loveday, M. 2 ; Hlangu, S. 2 ; Waitt, C. 3 ; Van Schalkwyk, M. 4 ; van de Water, B. 5 ; Salazar-Austin, N. 6 ; McKenna, L. 7 ; Mathad, J. S. 8 ; Kalk, E. 9 ; Hurtado, R. 10 ; Hughes, J. 11 ; Eke, A. C. 12 ; Ahmed, S. 13 ; Furin, J. 14 ;  
Source: The International Journal of Tuberculosis and Lung Disease, Volume 27, Number 5, 1 May 2023, pp. 357-366(10), DOI: 10.5588/ijtld.23.0031

Dardas, L., Xu, H., Franklin, M., Scott, J., Vance, A., Van de Water, B., & Pan, W. (2023). Cognitive behavioural therapy and medication for treatment of adolescent depression: A network meta-analysis. *Behavioural and Cognitive Psychotherapy*, 51(3), 230-245. doi:10.1017/S1352465822000662

Cristina M. Gago, Janine Jurkowski, Jacob P. Beckerman-Hsu, Alyssa Aftosmes-Tobio, Roger Figueroa, Carly Oddleifson, Josiemer Mattei, Erica L. Kenney, Sebastien Haneuse, Kirsten K. Davison, Exploring a theory of change: Are increases in parental empowerment associated with healthier weight-related parenting practices?, *Social Science & Medicine*, Volume 296, 2022, 114761, ISSN 02779536, <https://doi.org/10.1016/j.socscimed.2022.114761>.

Grafft, Natalie, Aftosmes-Tobio, Alyssa, Gago, Cristina, Lansburg, Kindra, Beckerman-Hsu, Jacob, Trefry, Brooke, Kumanyika, Shiriki, **Davison, Kirsten**, Adaptation and implementation outcomes of a parenting program for low-income, ethnically diverse families delivered virtually versus in-person, *Translational Behavioral Medicine*, 2022, DO 10.1093/tbm/ibac077

Gago, C., Aftosmes-Tobio, A., Beckerman-Hsu, J.P. *et al.* Evaluation of a cluster-randomized controlled trial: Communities for Healthy Living, family-centered obesity prevention program for Head Start parents and children. *Int J Behav Nutr Phys Act* **20**, 4 (2023).  
<https://doi.org/10.1186/s12966-022-01400-2>

**Shanmugam H**, Baum CF, **Hawkins SS**. Association of state drug laws with nonmedical use of prescription medications in adolescents. *Journal of Addiction Medicine* (in press).

**Pastrana A**, Baum CF, **Hawkins SS**. Associations between e-cigarette policies and adolescent use and access to e-cigarettes. *Drug and Alcohol Dependence Reports* 2023; 7:100157.  
doi: [10.1016/j.dadr.2023.100157](https://doi.org/10.1016/j.dadr.2023.100157) PMID: 37123432 PMCID: PMC10130058

†Hodges JC, †Walker DT, Baum CF, **Hawkins SS**. Impact of school shootings on adolescent school safety and weapon exposure. *American Journal of Public Health* 2023;e1-e4.  
doi: [10.2105/AJPH.2022.307206](https://doi.org/10.2105/AJPH.2022.307206) PMID: 36758203  
† joint first authors

Schneider C, Schuele H, Baum CF, Landrigan PJ, **Hawkins SS**. Associations between prenatal exposure to power plant emissions and birth outcomes across the United States. *Public Health* 2023;216:30-32. doi: [10.1016/j.puhe.2023.01.003](https://doi.org/10.1016/j.puhe.2023.01.003) PMID: 36773386

**Abuelezam NN**, Cuevas A, Galea S, **Hawkins SS**. Socially ascribed race and the health of minoritized women and their infants. *Health Equity* 2022;6(1):845-851. doi: [10.1089/heq.2022.0079](https://doi.org/10.1089/heq.2022.0079) PMID: 36479188 PMCID: PMC9712049

Schuele H, Baum CF, **Landrigan PJ**, **Hawkins SS**. Associations between of proximity to gas production activity and birth outcomes across the US. *Preventive Medicine Reports* 2022;30:102007. doi: [10.1016/j.pmedr.2022.102007](https://doi.org/10.1016/j.pmedr.2022.102007) PMID: 36245806 PMCID: PMC9554803

**Hawkins SS**, Harper S, Baum CF, Kaufman JS. Associations between state-level changes in reproductive health services and indicators of severe maternal morbidity. *JAMA Pediatrics* 2023;177(1):93-95. doi: [10.1001/jamapediatrics.2022.4136](https://doi.org/10.1001/jamapediatrics.2022.4136) PMID: 36374506 PMCID: PMC9664365

Coley RL, Carey N, **Hawkins SS**, Baum CF. COVID-19 related stressors and mental health symptoms among US adults. *Public Health Reports* 2022;137(6):1217-1226.  
doi: [10.1177/00333549221120451](https://doi.org/10.1177/00333549221120451) PMID: 36073255 PMCID: PMC9459370

Campos AP, **Hawkins SS**. The association between maternal employment and breastfeeding duration with household income in Mexico. *Journal of Human Lactation* 2022; 38(4):749-759.  
doi: [10.1177/08903344211072495](https://doi.org/10.1177/08903344211072495) PMID: 35135366

**Hawkins SS**, Wylie BJ, Hacker MR. Associations between electronic nicotine delivery systems and birth outcomes. *Journal of Maternal-Fetal & Neonatal Medicine* 2022;35(25):6868-6875. doi: [10.1080/14767058.2021.1929156](https://doi.org/10.1080/14767058.2021.1929156) PMID: 34030564

Abuelezam NN, Cuevas A, Galea S, **Hawkins SS**. Contested racial identity and the health of women and their infants. *Preventive Medicine* 2022;155:106965. doi: [10.1016/j.ypmed.2022.106965](https://doi.org/10.1016/j.ypmed.2022.106965) PMID: 35065971

**Hawkins SS**, Horvath K, Noble A, Baum CF. ACA and Medicaid expansion increased breast pump claims and breastfeeding for women with public and private insurance. *Women's Health Issues* 2022;32(2):114-121. doi: [10.1016/j.whi.2021.10.005](https://doi.org/10.1016/j.whi.2021.10.005) PMID: 34802860

M. Zaccaria, L. Genovese, B. E. Lawhorn, W. Dawson, A. S. Joyal, J. Hu, P. Autissier, T. Nakajima, W. E. Johnson, I. Fofana, M. Farzan & **B. Momeni**. (2023). Mechanistic investigation of SARS-CoV-2 Omicron variant spike mutants via full quantum mechanical modeling. bioRxiv. <https://doi.org/10.1101/2021.12.01.470748>

M. Zaccaria, W. Dawson, D. Russel Kish, M. Reverberi, M. C. Bonaccorsi di Patti, M. Domin, V. Cristiglio, B. Chan, L. Dellafiora, F. Gabel, T. Nakajima, L. Genovese & **B. Momeni**. (2023). Experimental–theoretical study of laccase as a detoxifier of aflatoxins. *Scientific Reports* 13, 860. <https://doi.org/10.1038/s41598-023-27519-1>

M. Beccaccioli, N. Pucci, M. Salustri, M. Scortichini, M. Zaccaria, **B. Momeni**, S. Loreti, M. Reverberi, and V. Scala. (2022). Fungal and bacterial oxylipins are signals for intra- and inter-cellular communication within plant disease. *Frontiers in Plant Science* 13, 823233. <https://doi.org/10.3389/fpls.2022.823233>

S. Dedrick, V. Warriar, K. P. Lemon, and **B. Momeni**. (2022). When does a Lotka-Volterra model represent microbial interactions? Insights from in-vitro nasal bacterial communities. bioRxiv. <https://doi.org/10.1101/2022.08.08.503228> (accepted for publication in *mSystems*)

A Lobanov, S Dyckman, H Kurkjian, **B Momeni**. (2022). Spatial structure may favor or disfavor microbial coexistence. bioRxiv. <https://doi.org/10.1101/2022.08.01.502385>

M. Zaccaria, N. Sandlin, Y. Soen, and **B. Momeni**. (2022). Partner-assisted artificial selection of a secondary function for efficient bioremediation. bioRxiv. <https://doi.org/10.1101/2022.05.12.491680>

N Sandlin, D Russell Kish, J Kim, M Zaccaria, **B Momeni**, (2022). Current and emerging tools of computational biology to improve the detoxification of mycotoxins. *Applied and Environmental Microbiology* 88, e02102-21. <https://doi.org/10.1128/aem.02102-21>

M. Zaccaria, L. Genovese, M. Farzan, W. Dawson, T. Nakajima, W. E. Johnson, & **B. Momeni**, (2022). Probing the mutational landscape of the SARS-CoV-2 spike protein via quantum mechanical modeling of crystallographic structures. *PNAS Nexus*, 2022. <https://doi.org/10.1093/pnasnexus/pgac180> (\*equal contribution)

K. Lee-Sarwar, S. Dedrick, **B. Momeni**, R.S. Kelly, R.S. Zeiger, G.T. O'Connor, M.T. Sandel, L.B. Bacharier, A. Beigelman, N. Laranjo, D.R. Gold, J. Lasky-Su, A.A. Litonjua, Y.-Y. Liu, & S.T. Weiss (2022). Association of the Gut Microbiome and Metabolome with Wheeze Frequency in Childhood Asthma. *Journal of Allergy and Clinical Immunology*. <https://doi.org/10.1016/j.jaci.2022.02.005>