2021-

#### **CURRICULUM VITAE**

### Amanda M. Wilson PhD, MS

Assistant Professor
Department of Community, Environment & Policy
Mel and Enid Zuckerman College of Public Health
University of Arizona
1295 N. Martin Ave. Drachman Hall, A233
Tucson, Arizona 85724
Email: amwilson2@arizona.edu

#### **CHRONOLOGY OF EDUCATION**

Bachelors of Sciences (BS) 2013

**Environmental Science** 

College of Agriculture and Life Sciences, University of Arizona

Masters of Science (MS) 2018

**Environmental Health Sciences** 

Mel and Enid Zuckerman College of Public Health, University of Arizona

Advisor: Dr. Kelly A. Reynolds, MSPH, PhD

Thesis: Modeling viral pathogen exposures and infection risk in healthcare settings

Doctor of Philosophy (PhD)

2020

**Environmental Health Sciences** 

Mel and Enid Zuckerman College of Public Health, University of Arizona

Advisor: Dr. Kelly A. Reynolds, MSPH, PhD

Dissertation: Advancing and addressing uncertainties in scenario-specific healthcare

QMRAs with multidisciplinary approaches

#### CHRONOLOGY OF EMPLOYMENT

Graduate Research Assistant 2016-2020

University of Arizona

Graduate Teaching Assistant 2019-2020

University of Arizona

Postdoctoral Researcher 2020-2021

Rocky Mountain Center for Occupational and Environmental Health

Department of Family and Preventive Medicine

School of Medicine

University of Utah

Assistant Professor (Tenure Track)

Department of Community, Environment, & Policy

Mel and Enid Zuckerman College of Public Health

University of Arizona

Assistant Professor (Non-tenure Track) BIO5 Institute University of Arizona	2023-
ADDITIONAL TRAINING	
Quantitative Microbial Risk Assessment III Workshop Attendee University of Washington	2019
Agent-based and Individual Based Models Work Group University of Arizona	2019
Visiting Scholar in Mathematical Modeling University of Leeds, United Kingdom	2019
Relational Leadership Training University of Utah	2021
Programs to Increase Diversity Among Individuals Engaged in Health Related Research (PRIDE) Advanced Respiratory Research for Equity Trainee, NHLBI-funded program	2021-2022 (AIRE)
Medical Decision Making, Core Course Curriculum Society for Medical Decision Making	2022
Implementation Science Short Course University of California, San Francisco	2023
Fundamentals of Qualitative Research ResearchTalk, Instructor: Dr. Johnny Saldana, Arizona State University	2024
IMS267 Qualitative and Mixed Methods Research University of California, San Francisco	2024
HONORS AND AWARDS	
National Science Foundation Bridge to Doctorate Fellowship Western Alliance to Expand Student Opportunities	2016-2018
1 <sup>st</sup> Place Graduate Oral Presentation Ecology, Environmental, and Earth Sciences Category Emerging Researchers National Conference in STEM American Association for the Advancement of Science (AAAS)	2018
Featured in Hispanic Engineer & Information Technology Volume 33, Issue 2, "STEM All-Stars" by Terrence Dove Accessible via <a href="https://tinyurl.com/ud6ltha">https://tinyurl.com/ud6ltha</a>	2018

2023, 2024

	niversity Fellows Award niversity of Arizona	2018-2019
	et Place Student Poster Competition ternational Society of Exposure Science Annual Conference	2020
	raduate and Professional Student Council Travel Grant niversity of Arizona	2020
	rainee Abstract Award entral Society for Clinical and Translational Research (CSCTR)	2023
Na Se	he Grainger Foundation Frontiers of Engineering Alumna (US FOE) ational Academy of Engineering elect group of emerging engineers across the U.S. Only 25% of nominated candivited to participate. One of fifteen invited speakers from the cohort.	2024 dates were
TEACHIN	NG	
	Instructor	
El	HS 484/584 Fundamentals of Industrial and Environmental Health	2022-
El	HS 699 Independent Study	2022-2024
El	HS 599 Independent Study	2022, 2024
El	HS 920 Dissertation	2023-2024
HI	NRS 498H Honors Thesis	2022-2024
Guest Lecturer		
	HS 518 Human Health Risk Assessment rimary Instructor: Kelly Reynolds, PhD, University of Arizona	2019
	HS 502 Environmental Monitoring Methods rimary Instructor: Jonathan Sexton, PhD, University of Arizona	2021
	SPH-V 450 Understanding and Preventing Environmental Risks to Human Health 2021 Primary Instructor: Jacqueline MacDonald Gibson, PhD, Indiana University Bloomington	
	irtual Workshop: Fomites – Human Behavior rimary Organizer: Charles Gerba, PhD, University of Arizona	2022
	PS 481 Health Education Intervention Methods rimary Instructor: Ashley Lowe, PhD, University of Arizona	2023, 2024

EHS 575 Environmental and Occupational Health Primary Instructor: Chris Lim, PhD, University of Arizona

# SERVICE

SERVICE	
Local/State Outreach and Service	
Presenter at the Congregate Care Weekly Call, Pima County, Ventilation Principles	2021
Healthcare Associated Infection (HAI) Advisory Committee, Arizona Department of Health Services	2021-2022
Direct Potable Reuse (DPR) Technical Advisory Group (TAG) Arizona Department of Environmental Quality (ADEQ)	2022-2023
Presenter on Microbial Risk Assessment at Monthly Call Healthcare Associated Infection Long-Term Care Subcommittee Arizona Department of Health Services	2024
Presenter at Career Day Quail Run Elementary School, Marana Unified School District	2024
National/International Outreach and Service	
Pacific Northwest Agriculture Health and Safety Center Pilot Grant Reviewer	2021
Invited participant for QMRA Key Stakeholders Workshop QMRA Education and Research Hosted by Michigan State University and Ohio State University	2021
Chair of the Student and New Researcher Committee, International Society of Exposure Science	2021-2022
Co-Chair of the Student and New Researcher Committee International Society of Exposure Science	2022-2023
Technical Organizing Committee Member International Society of Exposure Science	2022-2023
Peer Reviewer, Assure Fund United Kingdom National Health Service (NHS)	2023
Early Career Adhoc Reviewer, Special Emphasis Panel/Scientific Review Gro Neurological, Mental and Behavioral Health (NMBH) NIH Study Section	up 2023
Editorial Review Board Member  Journal of Occupational and Environmental Hygiene  *Joint Publication of the American Industrial Hygiene Association (AIHA) and the Ame Conference of Governmental Industrial Hygienists (ACGIH)	2023- rican

Web Committee Member Behavioral Science and Health Services Research Assembly American Thoracic Society	2023-
Advisory Panel Expert for Single-Family Water Reuse Applications San Francisco Public Utilities Commission	2023-2024
Early Career Adhoc Reviewer, Special Emphasis Panel/Scientific Review Gro- Neurological, Mental and Behavioral Health (NMBH) NIH Study Section	up 2024
Programming Committee Member Environmental, Occupational, and Population Health Sciences Assembly American Thoracic Society	2024-
Academic Councilor, Board of Directors International Society of Exposure Science	2024-2026
Manuscript Reviewer  Annals of Work Exposures and Health Applied and Environmental Microbiology Archivos de Bronconeumologia BMC Infectious Diseases BMC Research Notes BMJ Open Building and Environment Clinical Microbiology Reviews Energy and Built Environment Environmental Health Perspectives Environmental Justice Environmental Processes Environmental Research Environmental Science & Technology Environmental Science: Water Research & Technology Healthcare Indoor Air Indoor Environments International Journal of Environmental Research and Public Health International Journal of Nursing Studies Journal of Hospital Infection Journal of Theoretical Biology mSystems Nature Communications PLOS Computational Biology PLOS ONE Risk Analysis Science Advances Scientific Reports	2021 2023-2024 2024 2024 2024 2024 2021 2024 2022 2024 2021 2020-2023 2022 2020-2021 2024 2021 2021-2023 2024 2021 2021-2023 2021 2021-2022 2023-2024 2021 2024 2021 2024 2021 2024 2022
Viruses Water Research	2022 2024

2024-

## **Department Service** Annual Performance Review Committee, University of Arizona 2023 Mel and Enid Zuckerman College of Public Health, University of Arizona Department of Community, Environment & Policy Representative 2024-Research Advisory Committee, Mel and Enid Zuckerman College of Public Health, University of Arizona **College Service** Student Poster Forum Planning Committee, Faculty Advisor 2022-2023 Member of the One Health Program Development Advisory Team 2022-One Health Graduate Fellowship Reviewer 2024 Community Engagement, Practice & Service (CEPAS) Committee 2024-**University Service** Time and Project Management Panel 2021 University Fellows, University of Arizona Marshall Foundation Dissertation Fellowship and Dr. Maria Teresa Velez 2021 - Marshall Dissertation Scholarship Committee, Graduate College, University of Arizona University Fellowship Review Committee 2024 Graduate College, University of Arizona F24 Seed Grant Reviewer 2024 SensorLab, University of Arizona FY25 Research Development Grants-Faculty Seed Grants Reviewer 2024 Research, Innovation, & Impact, University of Arizona Collaborative on Academic Careers in Higher Education (COACHE) 2024on the Faculty Job Satisfaction Survey University of Arizona Working Group

Advisory Board Member (Pending Program Award)

University of Arizona

National Science Foundation Bridge to Doctorate Program

#### **MEDIA ENGAGEMENT**

## Media Related to Mask Material Effectiveness During COVID-19 Pandemic

- 1. Vacuum cleaner bags make the best homemade face masks, NHS research finds. The Sunday Post. https://www.sundaypost.com/fp/vacuum-cleaner-bag-is-best-diy-mask/
- 2. The vacuum bag mask for clean bill of health. Scottish Mail on Sunday. https://www.pressreader.com/uk/the-scottish-mail-on-sunday/20200607/textview
- 3. The Best (and Worst) Materials for Masks. UA News. <a href="https://uanews.arizona.edu/story/best-and-worst-materials-masks">https://uanews.arizona.edu/story/best-and-worst-materials-masks</a>
- 4. UA Compares the Best (and Worst) Material for COVID Masks. Desert Times and Tucson Weekly. <a href="https://www.tucsonlocalmedia.com/deserttimes/article\_f96ff1a8-c0a4-11ea-afd5-ff445cfa4ca7.html">https://www.tucsonlocalmedia.com/deserttimes/article\_f96ff1a8-c0a4-11ea-afd5-ff445cfa4ca7.html</a>
- 5. <a href="https://www.tucsonweekly.com/TheRange/archives/2020/07/07/ua-compares-the-best-and-worst-material-for-covid-masks">https://www.tucsonweekly.com/TheRange/archives/2020/07/07/ua-compares-the-best-and-worst-material-for-covid-masks</a>
- 6. These are the best and worst materials for face masks. Futurity. https://www.futurity.org/face-masks-best-and-worst-materials-2399652/
- 7. How much do masks actually protect us from coronavirus? The Jerusalem Post. <a href="https://www.jpost.com/health-science/how-much-do-masks-actually-protect-us-from-coronavirus-634411">https://www.jpost.com/health-science/how-much-do-masks-actually-protect-us-from-coronavirus-634411</a>
- 8. The face mask hacks you need to know: From the best materials to how to make them fit. Yahoo news. <a href="https://news.yahoo.com/face-mask-hacks-from-material-to-how-to-make-them-fit-095428222.html">https://news.yahoo.com/face-mask-hacks-from-material-to-how-to-make-them-fit-095428222.html</a>
- 9. Vacuum cleaner bag scores best for DIY facemask material in study. Newsweek. <a href="https://www.newsweek.com/vaccum-cleaner-bag-scores-best-diy-facemask-material-study-1516222">https://www.newsweek.com/vaccum-cleaner-bag-scores-best-diy-facemask-material-study-1516222</a>
- 10. COVID-19: The best (and worst) materials for masks. Healthcare-in-europe.com. https://healthcare-in-europe.com/en/news/covid-19-the-best-worst-materials-for-masks.html
- 11. Vacuum bags are super effective in face masks, UA says. This Is Tucson. <a href="https://thisistucson.com/tucsonlife/vacuum-bags-are-super-effective-in-face-masks-ua-says/article\_70235a76-c080-11ea-81e2-c77c10838cf2.html?fbclid=IwAR2CEC0wpAa-S9XnWND0IUutmk9XFktcudUY0Bo-8i9J8zQRkdYTCz9pEWE">https://thisistucson.com/tucsonlife/vacuum-bags-are-super-effective-in-face-masks-ua-says/article\_70235a76-c080-11ea-81e2-c77c10838cf2.html?fbclid=IwAR2CEC0wpAa-S9XnWND0IUutmk9XFktcudUY0Bo-8i9J8zQRkdYTCz9pEWE</a>
- 12. <u>Fact Finders: UA researchers look at best (and worst) materials for masks. KOLD News 13.</u> <u>https://www.kold.com/2020/07/13/fact-finders-ua-researchers-look-best-worst-materials-masks/</u>
- 13. <u>UA study looks into best materials for face masks. Arizona Public Media.</u> <a href="https://news.azpm.org/p/coronavirus/2020/7/24/177225-ua-study-looks-into-best-materials-for-face-masks/">https://news.azpm.org/p/coronavirus/2020/7/24/177225-ua-study-looks-into-best-materials-for-face-masks/</a>

14. The best face mask filters, according to doctors and scientists. The Strategist, New York Magazine. <a href="https://nymag.com/strategist/article/best-face-mask-filters.html">https://nymag.com/strategist/article/best-face-mask-filters.html</a>

## Expertise on Surface Hygiene during COVID-19 Pandemic

- 15. Sanitizing surfaces puts our minds at ease. But what good do 'deep cleans' really do? Discover Magazine. <a href="https://www.discovermagazine.com/health/sanitizing-surfaces-puts-our-minds-at-ease-but-what-good-do-deep-cleans">https://www.discovermagazine.com/health/sanitizing-surfaces-puts-our-minds-at-ease-but-what-good-do-deep-cleans</a>
- 16. Chemical experts question EPA's approval of coronavirus disinfectant. The Washington Post. <a href="https://www.washingtonpost.com/climate-environment/2020/08/26/epa-coronavirus-cleaner/">https://www.washingtonpost.com/climate-environment/2020/08/26/epa-coronavirus-cleaner/</a>

## Media Profile & Mentorship Stories

- 17. Bringing infection risks into focus. ResearchGate Stories. https://disable.com/disable
- 18. Faculty offer invaluable advice for new graduates.
  <a href="https://healthsciences.arizona.edu/connect/features/faculty-offer-invaluable-advice-new-graduates">https://healthsciences.arizona.edu/connect/features/faculty-offer-invaluable-advice-new-graduates</a>
- 19. How mentorship makes research happen. <a href="https://healthsciences.arizona.edu/blog/how-mentorship-makes-research-happen">https://healthsciences.arizona.edu/blog/how-mentorship-makes-research-happen</a>
- 20. Voices of Experience: Advice from University Fellows Alumni. <a href="https://gradcenter.arizona.edu/news/voices-experience-advice-university-fellows-alumni">https://gradcenter.arizona.edu/news/voices-experience-advice-university-fellows-alumni</a>

## Media on Nurse Risk-risk Tradeoff Research (K01HL168014)

- 21. University of Arizona gets grant to study chemicals' impact on healthcare workers. Arizona's Family. <a href="https://www.azfamily.com/video/2024/03/25/university-arizona-gets-grant-study-chemicals-impact-healthcare-workers/">https://www.azfamily.com/video/2024/03/25/university-arizona-gets-grant-study-chemicals-impact-healthcare-workers/</a>
- 22. UA professor has a plan to help prevent nurses from developing work-related asthma. KJZZ. <a href="https://kjzz.org/content/1876490/ua-professor-has-plan-help-prevent-nurses-developing-work-related-asthma">https://kjzz.org/content/1876490/ua-professor-has-plan-help-prevent-nurses-developing-work-related-asthma</a>.
- 23. NIH grants \$750K to a UA researcher. Here's what she's studying. https://kjzz.org/content/1875399/nih-grants-750k-ua-researcher-heres-what-shes-studying

# Media on American Lung Association Catalyst Award: Respiratory Viral Infection Risk Calculator

24. Helping Schools Calculate Respiratory Infection Risk. The Respiratory Report. American Lung Association. <a href="https://www.hcplive.com/view/helping-schools-calculate-respiratory-infection-risk">https://www.youtube.com/view/helping-schools-calculate-respiratory-infection-risk</a>. <a href="https://www.youtube.com/watch?v=N34HWXenysg">https://www.youtube.com/watch?v=N34HWXenysg</a>.

#### **PUBLICATIONS**

Underlined indicates corresponding author, \*Publication substantially based on work as a graduate student, °Co-authors who are graduate and undergraduate student or postdoctoral mentees.

## **Refereed Journal Articles (accepted)**

Publications as a Graduate Student

- Wilson, A.M., Reynolds, K.A., Verhougstraete, M.P., Canales, R.A. (2018). Validation of a stochastic discrete event model predicting virus concentration on nurse hands. *Risk Analysis*, 39, 8:1812-1824. DOI: 10.1111/risa.13281. PMID: 30759318.\*
- Canales, R.A., <u>Wilson, A.M.</u>, Pearce-Walker, J.I., Verhougstraete, M.P., & Reynolds, K.A. (2018). Methods for handling left-censored data in QMRA. *Applied and Environmental Microbiology*, 84, 20: e01203-18. DOI: 10.1128/AEM.01203-18. PMID: 30120116. PMCID: PMC6182903. *AEM Spotlight Article*.\*
- 3. Wilson, A.M., Reynolds, K.A., Sexton, J.D., Canales, R.A. (2018). Modeling surface disinfection needs to meet microbial risk reduction targets. *Applied and Environmental Microbiology*, *84*, 18:e00709-18. DOI: 10.1128/AEM.00709-18. PMID: 29980557. PMCID: PMC6121971.\*
- 4. <u>Sexton, J.D.</u>, **Wilson, A.M.**, Sassi, H.P., & Reynolds, K.A. (2018). Tracking and controlling soft surface contamination in healthcare settings. *American Journal of Infection Control, 46*, 1, 39-43. DOI: 10.1016/j.ajic.2017.08.002. PMID: 28916372.\*
- Canales, R.A., <u>Wilson, A.M.</u>, Sinclair, R.G., Soto-Beltran, M., Pearce-Walker, J.I., Molina, M., Penny, M., & Reynolds, K.A. (2019). Microbial study of household hygiene and associated *Listeria monocytogenes* infection risks for Peruvian women. *Tropical Medicine & International Health*, 24, 7:899-921. DOI: 10.1111/tmi.13246. PMID: 31066175.\*
- 6. <u>Wilson, A.M.</u>, Reynolds, K.A., Jaykus, L.A., Escudero-Abarca, B., & Gerba, C.P. (2019). Comparison of estimated norovirus infection risk reductions for a single fomite contact scenario with residual and nonresidual hand sanitizers. *American Journal of Infection Control*, 48, 5:538-544. DOI: 10.1016/j.ajic.2019.09.010.\*
- 7. <u>Wilson, A.M.</u>, Reynolds, K.A., & Canales, R.A. (2019). Estimating the effect of hand hygiene compliance and surface cleaning timing on infection risk reductions with a mathematical modeling approach. *American Journal of Infection Control, 47*, 12:1453-1459. DOI: 10.1016/j.ajic.2019.05.023.\*
- 8. Canales, R.A., Reynolds, K.A., Wilson, A.M., Fankem, S.L.M., Weir, M.H., Rose, J.B., Ad-Elmaksoud, S., & Gerba, C.P. (2019). Modeling the role of fomites in a norovirus outbreak. *Journal of Occupational and Environmental Hygiene, 16*, 1:16-26. DOI: 10.1080/15459624.2018.1531131. *Top 10 most cited articles in Journal of Occupational and Environmental Hygiene in 2021.*\*

- 9. <u>Wilson, A.M.</u>, Verhougstraete, M.P., Donskey, C.J., & Reynolds, K.A. (2020). An agent-based modeling approach to estimate pathogen exposure risks from wheelchairs. *American Journal of Infection Control, 49,* 2:206-214. DOI: 10.1016/j.ajic.2020.06.204.\*
- 10. <u>Wilson, A.M.</u>, Verhougstraete, M.P., Beamer, P.I., King, M-F., Reynolds, K.A., & Gerba, C.P. (2020). Frequency of hand-to-head, -mouth, -eyes, and -nose contacts for adults and children during eating and non-eating macro-activities. *Journal of Exposure Science and Environmental Epidemiology*. DOI: 0.1038/s41370-020-0249-8.\*
- 11. <u>Wilson, A.M.</u>, King, M-F., López-García, M., Weir, M.H., Sexton, J.D., Canales, R.A., Kostov, G.E., Julian, T.R., Noakes, C.J., & Reynolds, K.A. (2020). Evaluating a transfer gradient assumption in a fomite-mediated microbial transmission model using an experimental and Bayesian approach. *Journal of the Royal Society Interface*, *17*, 167. DOI: 10.1098/rsif.2020.0121.\*
- 12. Wilson, A.M., Abney, S.E.<sup>†</sup>, King, M-F., Weir, M.H., López-García, M., Sexton, J.D., Dancer, S., Proctor, J., Noakes, C.J., & Reynolds, K.A. (2020). COVID-19 and use of non-traditional masks: How do various materials compare in reducing the infection risk for mask wearers? *Journal of Hospital Infection*, 105, 640-642. DOI: 10.1016/j.jhin.2020.05.036.\*
- 13. <u>King, M.F.</u>, López-García, M., Zhang, N., Atedoghu, K., Hiwar, W.†, **Wilson, A.M.**, Dancer, S.J., Noakes, C.J., & Fletcher, L.A. (2020). Bacterial transfer to fingertips during sequential surface contacts with and without gloves. *Indoor Air*, *30*, 5:993-1004. DOI: 10.1111/ina.12682.\*
- 14. Pearce-Walker, J., Bright, K.R., Canales, R.A., **Wilson, A.M.**, <u>Verhougstraete, M.P.</u> (2020). Managing leafy green safety from adenoviruses and enteroviruses in irrigation water. *Agricultural Water Management*, 240, 106272. DOI: 10.1016/j.agwat.2020.106272.\*
- 15. Contreras, R.D.<sup>†</sup>, **Wilson, A.M.**, Garavito, F., Sexton, J., Reynolds, K.A., & <u>Canales, RA.</u> (2020). Assessing viral infection probability in an office setting using stochastic modeling. *Journal of Occupational and Environmental Hygiene*, *17*, 1:30-37. DOI: 10.1080/15459624.2019.1691219.\*

#### Published at Current Rank

- Wilson, A.M., King, M-F., Lopez-Garcia, M., Clifton, I., Proctor, J., Reynolds, K.A., & Noakes C.J. (2021). Integrating CFD and exposure modeling for estimating viral exposures at the air-surface interface. *AIAA*. CFD and COVID-19 mini symposium. DOI: 10.2514/6.2021-2740.\*
- 17. **Wilson, A.M.**, Aviles, N.P., Petrie, J.I., Beamer, P.I., Szabo, Z., Xie, M., McIllece, J., Chen, Y., Son, Y-J., Halai, S., White, T., Ernst, K.C., <u>Masel, J.</u> (2021). Quantifying COVID-19 infection risk within the Apple/Google exposure notification framework to inform quarantine recommendations. *Risk Analysis*, *42*, 1:162-176. DOI: 10.1111/risa.13768.\*
- 18. <u>Wilson, A.M.</u>, Jones, R.M., Lugo Lerma, V.\*, Abney, S.E.\*, King, M-F., Weir, M.H., Sexton, J.D., Noakes, C.J., & Reynolds, K.A. (2021). Respirators, face masks, and their risk reductions via multiple transmission routes for first responders within an ambulance. *Journal*

- of Occupational and Environmental Hygiene, 18, 7, 345-360. DOI: 10.1080/15459624.2021.1926468.
- Wilson, A.M., King, M-F., López-García, M., Clifton, I., Proctor, J., Reynolds, K.A., & Noakes, C.J. (2021). Effects of patient room layout on viral accruement on healthcare workers' hands. *Indoor Air*, 31, 5:1657-1672. DOI: 10.1111/INA.12834.\*
- 20. <u>King, M-F.</u>, **Wilson, A.M.**, López-García, M., Proctor, J., Peckham, D.G., Clifton, I.J., Dancer, S.J., & Noakes, C.J. (2021). Why is mock care not a good proxy for predicting hand contamination during patient care? *Journal of Hospital Infection, 109*, 44-51. DOI: 10.1016/j.jhin.2020.11.016.\*
- 21. <u>Wilson, A.M.</u>, Weir, M.H., Bloomfield, S.F., Scott, E.A., & Reynolds, K.A. (2021). Modeling COVID-19 infection risks for a single hand-to-fomite scenario and potential risk reductions offered by surface disinfection. *American Journal of Infection Control, 49*, 6, 846-848. In press. DOI: 10.1016/j.ajic.2020.11.013. *Cited in a COVID-19 CDC Scientific Report.*\*
- 22. <u>Wilson, A.M.</u>, Weir, M.H., King, M-F., & Jones, R.M. (2021). Comparing approaches for modelling indirect contact transmission of infectious diseases. *Journal of the Royal Society Interface*, *18*, 182:20210281. DOI: 10.1098/rsif.2021.0281.
- 23. King, M-F., Wilson, A.M., Weir, M.H., López-García, M., Proctor, J., Hiwar, W., Khan, A., Fletcher, L.A., Sleigh, P.A., Clifton, I., Dancer, S.J., Wilcox, M., Reynolds, K.A., & Noakes, C.J. (2021). Modelling fomite-mediated SARS-CoV-2 exposure through personal protective equipment doffing in a hospital environment. *Indoor Air, 32*, 1:e12938. DOI: 10.1111/ina.12938.
- 24. **Wilson, A.M.**, Kaur, K.\*, <u>Jones, R.M.</u>, Kelly, K.E. (2021). Feasibility of a high-volume filter sampler for detecting SARS-CoV-2 RNA in COVID-19 patient rooms. *Annals of Work Exposures and Health*, *66*, 2:276-280. DOI: 10.1093/annweh/wxab100.
- 25. <u>Wilson, A.M.</u>, & Jones, R.M. (2021). Exploring spatial averaging of contamination in fomite microbial transfer models and implications for dose. *Journal of Exposure Science & Environmental Epidemiology*, 32, 5:759-766. DOI: 10.1038/s41370-021-00398-2.
- 26. **Wilson, A.M.**, Sleeth, D.K., Schaefer, C., & <u>Jones, R.M.</u> (2022). Transmission of respiratory viral diseases to healthcare workers: COVID-19 as an example. *Annual Reviews of Public Health*, *43*, 311-330. DOI: 10.1146/annurev-publhealth-052120-110009.
- 27. **Wilson, A.M.,** Martin, S.L., <u>Verhougstraete, M.P.</u>, Kendall, A.D., Zimmer-Faust, A.G., Rose, J.B., Bell, M.L., Hyndman, D.W. (2022). Detangling seasonal relationships of fecal contamination sources and correlates with indicators in Michigan watersheds. *Microbiology Spectrum*, *10*, 4:e0041522. 10.1128/spectrum.00415-22.
- 28. Lee, S., <u>Wilson, A.M.</u>, Cooksey, E., Boccelli, D., Verhougstraete, M.P. (2022). Exploring vulnerable nodes, impactful viral intrusion sites, and viral infection risk reductions offered by chlorine boosters in municipal drinking water networks. *Journal of Water Resources Planning and Management*, *148*, 9. DOI: 10.1061/(ASCE)WR.1943-5452.0001589. *Editor's Choice.*

- 29. **Wilson, A.M.,** Canter, K., Abney, S.E., Gerba, C.P., Myers, E., Hanlin, J., & <u>Reynolds, K.A.</u> (2022). An application for relating *Legionella* shower water monitoring results to estimated health outcomes. *Water Research*, *221*: 118812. DOI: 10.1016/j.watres.2022.118812.
- 30. <u>Wilson, A.M.</u>, Ogunseye, O.O.°, DiGioia, O., Gerald, L.B., Lowe, A.A. (2022). Barriers to COVID-19 intervention implementation in K-5 classrooms: A survey of teachers from a district with mask mandates despite a statewide mask mandate ban. *International Journal of Environmental Research and Public Health*, 19,14:8311. DOI: 10.3390/ijerph19148311.
- 31. **Wilson, A.M.**, Gold, D.R., <u>Beamer, P.I.</u> (2022). Risk of microbial surface transmission in the built environment and strategies for management. *The Bridge.* National Academy of Engineering. 52(3).
- 32. Lowe, A.A., Ravi, P., Gerald, L.B., **Wilson A.M.** (2022) The changing job of school nurses during the COVID-19 pandemic: A media content analysis of contributions to stress. *Annals of Work Exposures and Health, 67*, 1:101-117. DOI: 10.1093/annweh/wxac053.
- 33. <u>Abney, S.E.</u>°, **Wilson, A.M.**, Ijaz M.K., McKinney, J., Reynolds, K.A., Gerba, C.P. Minding the matrix: (2022). The importance of inoculum suspensions in finger transfer efficiency. *Journal of Applied Microbiology, 133*, 5:3083-3093. DOI: 10.1111/jam.15758.
- 34. Victory, K.R., **Wilson, A.M.**, Cabrera, N.L., Larson, D., Reynolds, K.A., Latura, J., <u>Beamer, P.I.</u> (2022). Risk perceptions of drinking bottled vs. tap water in a low-income Latinx community in Nogales, Arizona. *BMC Public Health*, *22*, 1:1712. DOI: 10.1186/s12889-022-14109-5.
- 35. **Wilson, A.M.**, Victory, K.R., Reynolds, K.A., Cabrera, N.L., Larson, D., Latura, J., Sexton, J., Burgess, J.L., <u>Beamer, P.I.</u> (2022). Measured and modeled comparisons of chemical and microbial contaminants in tap, bottled and vended water in a U.S.-Mexico border community. *Environmental Science & Technology: Water, 2*, 12:2657-2667. DOI: 10.1021/acsestwater.2c00400
- 36. Wilson A.M., Mussio, I., Chilton, S., Gerald, L.B., Jones, R.M., Drews, F., LaKind, J., Beamer, P.I. (2022). A novel application of risk-risk tradeoffs in occupational health: Nurses' occupational asthma and infection risk perceptions related to cleaning and disinfection during COVID-19. *International Journal of Environmental Research and Public Health, 19*, 23:16092. DOI: 10.3390/ijerph192316092
- 37. Wilson, A.M., Ogunseye, O.O.°, Fingesi, T.°, McClelland, J., Gerald, L.B., Harber, P., Beamer, P.I., Jones, R.M. (2023). Exposure frequency, intensity, and duration: What we know about work-related asthma risks for healthcare workers from cleaning and disinfection. *Journal of Occupational and Environmental Hygiene, 20*, 8:350-363. DOI: 10.1080/15459624.2023.2221712.
- 38. <u>Jung, Y.,</u>° Gerba, C.P., Reynolds, K.A., **Wilson, A.M.** (2023). Evaluating infection risks and importance of hand washing during household laundry process using a QMRA approach. *American Journal of Infection Control, 51,* 12:1377-1383. DOI: 10.1016/j.ajic.2023.05.017.

- 39. <u>Wilson, A.M.</u>, Ravi, P.\*, Gerald, L.B., Lowe, A.A. (2023). School health systems under strain: An example of COVID-19 experiences & burnout among school health staff in Pima County, Arizona. *BMC Public Health*, 23, 1:1626. DOI: 10.1186/s12889-023-16532-8.
- 40. Wilson, A.M., Jung, Y., Mooneyham, S.A., Klymko, I., Eck, J., Romo, C., Vaidyula, V.R., Sneed, S.J., Gerald, L.B., Beamer, P.I. (2023). COVID-19 cleaning protocol changes, experiences, and respiratory symptom prevalence among cleaning services personnel. *Frontiers in Public Health*, 14, 11:1181047. DOI: 10.3389/fpubh.2023.1181047.
- 41. Abney, S.E., Higham, C.A., Wilson, A.M., Ijaz, M.K., McKinney, J., Reynolds, K.A., Gerba, C.P. (2023). Transmission of viruses from restroom use: A quantitative microbial risk assessment. *Food and Environmental Virology*. DOI: 10.1007/s12560-023-09580-1.
- 42. Hernandez-Zepeda, C., Negrete-Alcalde, L.J., Rosiles-Gonzales, G., Carrillo Jovel, V-H., Abney, S.E., Betancourt, W.Q., Gerba, C.P., Chaidez-Quiroz, C., Wilson, A.M. (2024). Human adenovirus associated health risk in recreational waters of Yal-ku lagoon in the Mexican Caribbean. *Journal of Water and Health*. DOI: 10.2166/wh.2024.309.
- 43. Ravi, P., Muralidhar, K., Madhivanan, P., Wilson, A.M., von Hippel, F.A., Salamova, A., Gerald, L.B. (2024). Occupational exposures among women beedi workers in Mysore District, India: A mixed-methods study protocol. *PloS ONE, 19*(4):e0297638. DOI: 10.1371/journal.pone.0297638.
- 44. <u>Wilson, A.M.</u>, Gerald, L.B., Beamer, P.I. (2024). Recruitment strategies in marginalized industries for occupational health research: An example in a pilot study of cleaning staff during COVID-19. *Annals of Work Exposures and Health*. DOI: 10.1093/annweh/wxae002.
- 45. Ravi, P., Muralidhar, K., Ngaybe Block, M.G., Nayaka, S., Jayakrishna, P., Lowe, A.A., Kupp, K., **Wilson, A.M.**, von Hippel, F.A., Chen, Z., Gerald, L.B., Madhivanan, P. (2024). Qualitative study to explore the occupational and reproductive health challenges among women tobacco farm laborers in Mysore District, India. *International Journal of Environmental Research and Public Health*. DOI: 10.3390/iierph21050606.
- 46. <u>Hamilton, K.A.,</u> Mitchell, J., Weir, M.H., Verhougstraete, M., Haas, C.N., Pouyan Nejadhashemi, A., Libarkin, J., Aw, T., Bibby, K., Bivins, A., Brown, J., Dean, K., Eisenberg, J., Emelko, M., Gerrity, D., Gurian, P., Hartnett, E., Jahne, M., Jones, R.M., Julian, T., Li H., Li, Y., MacDonald Gibson, J., Medeman, G., Meschke, S., Mraz, A., Murphy, H., Oryang, D.O., Owusu-Ansah, E. D-G., Pasek, E., Pradhan, A., Razzolini, M.T.P., Ryan, M.O., Schoen, M., Smeets, P., Soller, J., Solo-Gabriele, H., Williams, C., Wilson, A.M., Zimmer-Faust, A., Rose, J.B. (2024). Research gaps and priorities for Quantitative Microbial Risk Assessment (QMRA). *Risk Analysis*. DOI: 10.1111/risa.14318.
- 47. Heida, A., Maal-Bared, R., Veillette, M., Duchaine, C., Reynolds, K.A., Ashraf, A., Olusola, O.O., Jung, Y., Shulman, L., Ikner, L., Betancourt, W., Hamilton, K.A., Wilson, A.M. (2024). Quantitative Microbial Risk Assessment (QMRA) tool for modeling pathogen infection risks to wastewater treatment plant workers. Water Research. DOI: 10.1016/j.watres.2024.121858.

- 48. <u>Verhougstraete, M.</u>, Cooksey, E., Pearce-Walker, J., **Wilson, A.M.**, Lewis, M.S., Yoder, A., Weir, M.H. (2024). Impact of terminal cleaning in rooms previously occupied by patients with healthcare-associated infections. *PLoS One*. Accepted. DOI: 10.1371/journal.pone.0305083.
- 49. Nava, B.,° <u>Wilson, A.M.</u> (2024). Access to hygiene facilities and experiences of hygienerelated disease: A pilot study of unsheltered individuals in Tucson, Arizona. *Hygiene and Environmental Health Advances*. Accepted. DOI: 10.1016/j.heha.2024.100100.
- 50. <u>Wilson, A.M.</u> (2024). Achieving Impact through Human Behaviors and Community Engagement in Risk Assessment. *The Bridge*. Accepted. Publication pending. Invited article as U.S. Frontiers of Engineering 2024 participant and speaker.
- 51. <u>Wilson, A.M.</u>, Mussio, I., Verhougstraete, M.P., Chilton, S., Jung, Y., Ashraf, A., Hamilton, K. (2025). A risk-risk tradeoff approach for incorporating the public's risk perceptions into quantitative microbial risk assessment. *Journal of Occupational and Environmental Hygiene*. DOI: 10.1080/15459624.2024.2423756.

#### **Published Non-Peer Reviewed Editorials**

52. <u>Wilson, A.M.</u>, Jung, Y., Reynolds, K.A. (2023). Grappling with the tradeoffs of cleaning and disinfection: A call for Targeted Hygiene. *Environmental Science & Technology*, *57*, 49:20457-20459.

#### **Published Abstracts**

- 53. **Wilson, A.M.,** Reynolds, K.A., & Canales, R.A. (2018). Predicting viral infection risks and optimizing hygiene protocols using a modeling approach. *American Journal of Infection Control*, 46, 6: S42-S43. DOI: 10.1016/j.ajic.2018.04.093.\*
- 54. **Wilson, A.M.**, Donskey, C.J., Verhougstraete, M.P., & Reynolds, K.A. (2020). Estimating the contribution of a wheelchair to pathogen spread with an agent-based model. *Infection Control and Hospital Epidemiology*, *41*, S1:s474. DOI: 10.1017/ice.2020.1150.\*
- 55. **Wilson, A.M.**, Liu, Y.°, Reynolds, K.A, Noakes. C.J., & King, M-F. (2020). Comparing contaminant transfer potential of repetitive hand-to-fomite contacts for gloved and ungloved hands using a fluorescent powder. *American Journal of Infection Control*, *48*, 8:S29. DOI: 10.1016/j.ajic.2020.06.196.\*
- 56. Lugo, V. °, **Wilson, A.M.**, & Reynolds, K.A. (2020). Evaluating the use of ultraviolet light to reduce transmission of methicillin-resistant *Staphylococcus aureus* in emergency medical service vehicles. *American Journal of Infection Control, 48*, 8: S18-S19. DOI: 10.1016/j.ajic.2020.06.114.\*
- 57. Jung, Y.\*, **Wilson, A.M.**, Gerba, C.P., Reynolds, K.A. (2022). What risks does the residential laundry process pose?: A quantitative microbial risk assessment (QMRA) study. *American Journal of Infection Control*, *50*, 7: S16. DOI: 10.1016/j.ajic.2022.03.088.
- 58. Ravi, P., Muralidhar, K., Nayaka S., Jayakrishna, P., Block, M., **Wilson, A.**, Gerald, L.B., Madhivanan, P. (2022). Health challenges among women tobacco farm laborers, Mysore,

- India. *Annals of Epidemiology (ACE abstracts), 75*: 82. DOI: 10.1016/j.annepidem.2022.08.025.
- 59. **Wilson, A.M.,** Vaidyula, V.R., Romo, C.R., Sneed, S.J., Gerald, L.B., Beamer, P.I. (2023). Prevalence of respiratory symptoms among janitors, custodians, and maids and associations with changes in COVID-19 cleaning protocols. *American Journal of Respiratory and Critical Care Medicine*, 207: A1817. DOI: 10.1164/ajrccmconference.2023.207.1 MeetingAbstracts.A1817.
- 60. Ackerley, L., Jung, Y., Cooper, S., Upson, S., Gent, L., Buckley, C., Spitzer, M.E., Sexton, J.D., Reynolds, K.A., **Wilson, A.M.** (2023). Targeted Hygiene reduces surface transmission and infection risk for respiratory viruses. *European Journal of Public Health*, *33*: Supplement 2, October 2023, DOI: 10.1093/eurpub/ckad160.996.
- 61. **Wilson, A.M.,** Jung, Y., Lowe, A.A., Verhougstraete, M.P., Seong, D., Islam, M.T., Song, Y-J., Gerald, L.B. (2024). Developing a risk calculator tool to reduce respiratory viral transmission in classrooms (abstract). *American Journal of Respiratory and Critical Care Medicine*, 209:A1389.
- 62. Jung, Y., Wilson, K.T., **Wilson, A.M.** (2024). Do hybrid work days decrease infection risk? CO2 sensor data and risk analysis of an office setting (abstract). *American Journal of Respiratory and Critical Care Medicine*, 209:A3092.
- 63. Honan, J.K., von Hippel, F.A., Remiker, M., Baldwin, J.A., Trotter, R.T., Aguirre, A., Milner, T., Torres, E., Dillon, D., Morel Espinosa, M., Blount, B.C., Furlong, M., **Wilson, A.,** Beamer, P.I., Buck, C.L. (2024). Associations between urinary perchlorate and thyroid health outcomes in Yuma County, Arizona. *ISEE 2024: 36th Annual Conference of the International Society of Environmental Epidemiology.* DOI: 10.1289/isee.2024.0816.

#### Refereed Journal Articles (Under review or in preparation)

Under review

- 64. Tierney, B., Andiroglu, E., Beamer, P.I., Biswas, P., Chen, C-B., Deng, D., Doss, C., Erickson, D., Erkoc, M., Ernst, K., Ferguson, A., Grills, G.S., Halai, S., Hsu, K-I., Jiang, S., Jian, Y., Kim, J., Kumar, N., Minin, V., Newman, R.H., Obeng-Gyasi, E., Omachonu, V., Ragan, R., Ruff, D.L., Schurer, S., Sarafraz, A., Sierra, M., Subbian, V., Verhougstraete, M., Vidovic, D., De Vlaminck, I., **Wilson, A.M.,** Wu, C-Y., Yin, X., Solo-Gabrielle, H.M., <u>Mason, C.E.</u> A pan-domain omics paradigm for pathogen surveillance (POPPS). *Genome Medicine*. Under review.
- 65. <u>Wilson, A.M.</u>, Lowe, A.A., Amoh-Asante, N.A.A., Zhan, Y., Ashraf, A., Gerald, L.B. School-informed risk calculator tool for reducing the spread of respiratory viral infection and protecting asthmatic children's health. *Indoor Air*. Under review.
- 66. <u>Kent, D.A.</u> Villegas-Downs, M., **Wilson, A.M.**, Freedman, M., Krishnan, J.A., Gerald, L.B. Consensus and challenges in returning BNP research results to participants: Insights from a modified Delphi process. *Pilot and Feasibility Studies*. Under review.

- 67. Mussio, I., Chilton, S., Kent, D.A., Gerald, L.B., <u>Wilson, A.M.</u> Applying a risk-risk tradeoff and reverse QMRA approach to surface cleaning and disinfection protocols: A study of nurses registered in Oregon, U.S. *Risk Analysis*. Under review.
- 68. Honan, J.K. von Hippel, F.A., Remiker, M., Baldwin, J.A., Trotter, R.T., Aguirre, A., Milner, T., Torres, E., Dillon, D., Espinosa, M.M., Blount, B.C., **Wilson, A.M.**, Furlong, M. Beamer, P.I., Buck, C.L. Associations between urinary perchlorate and thyroid health outcomes in Yuma County, Arizona. *Environmental Pollution*. Under review.
- 69. Abney, S.E., Bloomfield, S.F, <u>Boone, S.A.,</u> Cutts, T., Gerba, C.P., Ijaz, M.K., Lyons, A.K., Maillard, J-Y., Mena, K.D., McKinney, J., Park. G.W., Scott, E., Reynolds, K.A., Rutala, W.A., Sattar, S.A., Weber, D.J., Verhougstraete, M.P., Williams, M.M., Furin, W.A., **Wilson, A.M.,** Whitworth, J.C., Zagar, B. The role of fomites in virus transmission in the built environment. *mSphere*. Under review.
- 70. Amoh-Asante, N.A.A., Lowe, A.A., <u>Wilson, A.M.</u> Real-world challenges to respiratory viral disease mitigation in schools: Insights from general and special subject teachers during COVID-19. *BMC Research Notes*. Under review.

#### **INVENTIONS**

Quantifying SARS-CoV-2 infection risk within the Google/Apple exposure notification framework to inform quarantine recommendations. Invention ID: INV21-362. University of Arizona. Joanna Masel: 90%; **Amanda M. Wilson**: 10%.

## **CONFERENCES/SCHOLARLY PRESENTATIONS (At Current Rank)**

Students: Underlined name indicates speaker(s).

#### **Seminars**

Invited

<u>Wilson, A.M.</u> (2021, August). Environmental SARS-CoV-2 transmission and a risk-based approach in digital contact tracing. WeHealth Seminar.

<u>Wilson, A.M.</u> (2022, September). Human behavior and interventions in fomite-related QMRAs. University of Arizona Fomite Workshop.

<u>Wilson, A.M.</u> (2022, November). Microbial risks in the built environment: estimating risk and exploring risk-risk tradeoffs. Department of Environmental Science, University of Arizona Seminar Series.

<u>Wilson, A.M.</u> (2022, November). Cleaning and disinfection in the age of covid: A risk-risk tradeoff. Asthma & Airway Disease Research Center Seminar Series. University of Arizona.

<u>Wilson, A.M.</u> (2023, October). QMRA as a Tool for Informing Risk-based Design. Healthy Interior Design Online Symposium, Toronto Metropolitan University.

<u>Wilson, A.M.</u> (2023, November). Risk assessment approaches for reducing respiratory viral transmission and exploring risk-risk tradeoffs. Office of Population Health Sciences, University of Illinois at Chicago.

<u>Wilson, A.M.</u> (2024, March). Reverse QMRA for Informing Built Environment Design. American Chemical Society Annual Meeting, Virtual.

Hamilton, K.A., Gurian, P., Wilson, A.M. (2024, March). Communicating Risk. QMRA III and QMRA IV Webinar.

## **Symposia**

#### Invited

The successes and challenges of multi-sector and multidisciplinary response efforts. International Society of Exposure Science (ISES) Symposium, 2021 Conference, September. Symposia chair.

#### Submitted

Community engagement for pulmonary and environmental health research: Lessons learned from community partners, site access, and recruitment. Symposia chairs: **Amanda M. Wilson**, Lauren Kearney, Peggy S. Lai. American Thoracic Society, 2025. Accepted.

#### Conferences

#### Invited

Integrating CFD and exposure modeling for estimating viral exposures at the air-surface interface. AIAA. CFD and COVID-19 mini symposium, 2021.

Collaborative training development for emergency medical services (EMS) personnel and subsequent quantitative microbial risk assessment. International Society of Exposure Science (ISES) Symposium, 2021.

Barriers to COVID-19 intervention implementation in K-5 classrooms and teachers' risk perceptions and experiences. Southern California Education and Research Center Pilot Project Program Presentations, University of California Los Angeles, CA, USA, 2022.

Interacting with microbes in our environment: applying a risk-risk tradeoff framework. 2022. One Health Symposium, University of Arizona, 2022.

Bolstering resiliency for successful utility/university partnership. AZ Water Reuse Symposium. Phoenix, AZ, 2023.

#### Submitted

- <u>Kaur, K.,</u>° **Wilson, A.M.**, Jones, R.M., Kelly, K.E. (2021, October). Feasibility of a High-Volume Filter Sampler for Detecting SARS-Cov-2 RNA in COVID-19 Patient Rooms. 2021. The American Association for Aerosol Research.
- <u>Wilson, A.M.</u>, Jones, R.M. (2021, December). Exploring the effect of spatial averaging of contamination on estimated dose in indirect exposure models. Society of Risk Analysis 2021 Conference.
- Ravi, P., Lowe, A.A., **Wilson, A.M.**, Gerald, L.B. (2022, April). From isolation to vaccination: School health staff pandemic experiences in Pima County, Arizona. Mel and Enid Zuckerman College of Public Health Poster Forum. *3<sup>rd</sup> place Exemplary Research in Public Health Award.*
- Ogunseye, O.O., Lowe, A.A., Gerald, L.B., **Wilson, A.M.** (2022, April). Barriers associated with implementing COVID-19 guidelines among teachers. Mel and Enid Zuckerman College of Public Health Poster Forum.
- <u>Jung, Y.,</u> Wilson, A.M., Gerba, C.P., Reynolds, K.A. (2022, April). Handwashing while doing laundry: how much risk can we reduce? Mel and Enid Zuckerman College of Public Health Poster Forum.
- <u>Wilson, A.M.</u>, Romos, C., Sneed, S.J., Gerald, L.B., Beamer, P.I. (2022, April). Asthma prevalence among cleaning services personnel and effects of COVID-19. Programs to Increase Diversity Among Individuals Engaged in Health Related Research (PRIDE) Conference 2022.
- <u>Wilson, A.M.</u>, Mussio, I., Chilton, S., Gerald, L.B., Jones, R.M., Drews, F., LaKind, J., Beamer, P.I. (2022, May). Asthma and infection risk-risk tradeoffs related to cleaning and disinfection: preliminary data from a pilot survey. American Thoracic Society 2022 Conference.
- <u>Jung, Y...</u>° **Wilson, A.M.**, Reynolds, K.A. (2022, June). What risks does the residential laundry process pose?: A quantitative microbial risk assessment (QMRA) study. Association for Professionals in Infection Control 2022 Conference.
- <u>Vaidyula, V.R.</u>, Romo, C., Sneed, S.J., Eck, J., Gerald, L.B., Beamer, P.I., **Wilson. A.M.** (August, 2022). Prevalence of asthma symptoms among cleaning services personnel during the COVID-19 pandemic. University of Arizona FRONTERA Program Presentations.
- <u>Raygoza, K.S.</u>, Gerald, L.B., Jones, R.M., Drews, F.A., LaKind, J.S., Beamer, P.I., **Wilson, A.M.** (August, 2022). Perceptions of cleaning and disinfection risk-risk tradeoffs for nurses. University of Arizona FRONTERA Program Presentations.
- Ravi, P., Muralidhar, K., Nayaka, S., Jayakrishna, P., Block, M., **Wilson, A.**, Gerald, L.B., Madhivanan, P. (September, 2022). Reproductive health challenges among women tobacco farm laborers, Mysore, India. American College of Epidemiology Annual Conference.

- <u>Jung, Y.,</u>° Sexton, J.D., Reynolds, K.A., Buckley, C., Upson, S. Ackerley, L., Grant, L., **Wilson, A.M.** (2023, April). How much infection risk could surface cleaning reduce for hotel lobby users? Public Health Poster Forum, University of Arizona, Tucson, AZ.
- <u>Ashraf, A.,</u>° **Wilson, A.M.** (2023, April). The impact of covid-19 on safety awareness and behaviors: a qualitative study on nurses. Public Health Poster Forum, University of Arizona, Tucson, AZ.
- <u>Nava, B.</u>, Wilson, A.M. (2023, April). Hygiene is a Human Right: Access to hygiene facilities in unsheltered individuals and effects on health. Public Health Poster Forum, University of Arizona, Tucson, AZ.
- **Wilson, A.M.,** Lowe, A.A., Ravi, P., Olusola, O.O., DiGioia, O., Mooneyham, S., Klymko, I., Eck, J., Romo, C., Vaidyula, V., Sneed, S.J., Gerald, L.B., Beamer, P.I. Poster presented by Lowe AA. Oral presentation by LB Gerald. (2023, April). COVID-19 intervention implementation: Disruptions and barriers for elementary classroom teachers, school health staff, and school cleaning staff. 2023 Midwest Clinical & Translational Research Meeting, Chicago, IL.
- <u>Wilson, A.M.</u>, Vaidyula, V.R., Romo, C., Sneed, S.J., Gerald, L.B., Beamer, P.I. (2023, May). Prevalence of respiratory symptoms among janitors, custodians, and maids and associations with changes in COVID-19 cleaning protocols. American Thoracic Society, Washington D.C., USA
- <u>Salcedo, C.,</u>° **Wilson, A.M.,** Ikner, I. (2023, May). Bridging the Gap between Utilities and Researchers in Arizona to Build Resilience Towards Emerging Water-Related Challenges. World Environmental & Water Resource Congress, Henderson, NV, USA.
- <u>Jung, Y.,</u>° Sexton, J.D., Reynolds, K.A., Buckley, C., Upson, S., Ackerley, L., Grant, L., **Wilson, A.M.** (2023, June). Estimating impacts of a targeted hotel hygiene intervention toward meeting microbial infection risk reduction goals. ASM Microbe, Houston, TX.
- Seong, D., Jung, Y., M.T., Islam, Yijie, C., **Wilson, A.,** Youn-Jun, S., Verhougstraete, M.P. (2023, June). Risk assessment of virus laden aerosols in a classroom under various ventilation conditions. Association of Environmental Engineering and Science Professors 2023 Conference.
- <u>Jung, Y.,</u>° **Wilson, A.M.** (2023, August). Identifying the relationship between carbon dioxide concentration, occupancy data, and infection risk of airborne microorganisms. International Society of Exposure Science.
- <u>Ackerley, L.</u>, Jung, Y., Cooper, S., Upson, S., Gent, L., Buckley, C., Spitzer, M.E., Sexton, J.D., Picton, J.L., Akagi-Miura, B.T., Reynolds, K.A., **Wilson, A.M.** (2023, November). Targeted hygiene reduces surface transmission and infection risk or respiratory viruses. European Public Health Conference.
- <u>Gibbs, H.J.,</u> Salcedo-Ballesteros, C., **Wilson, A.M.**, Ikner, L. (2024, March). Implementing water solutions through partnerships. Water Resources Research Center 2024 Annual Conference.

- <u>Wilson, A.M.,</u> Jung, Y., Lowe, A.A., Verhougstraete, M.P., Seong, D., Islam, M.T. Son, Y-J., Gerald, L.B. (2024, May). Developing a risk calculator tool to reduce respiratory viral transmission in classrooms. American Thoracic Society 2024.
- <u>Jung, Y.,</u>° Wilson, K.T., (2024, May). **Wilson, A.M.** Do hybrid work days decrease infection risk? CO<sub>2</sub> sensor data and risk analysis of an office setting. American Thoracic Society 2024.
- <u>Wilson, A.M.</u>, Gerald, L.B., Pargas, N.T., Lowe, A.A. (2024, June). School nursing during COVID-19: Lessons learned and reducing future transmission. National Association of School Nursing, 2024 Conference.
- <u>Honan, J.K.,</u>° von Hippel, F.A., Remiker, M., Baldwin, J.A., Trotter, R.T., Aguirre, A., Milner, T., Torres, E., Dillon, D., Morel Espinosa, M., Blount, B.C., Furlong, M., **Wilson, A.M.**, Beamer, P.I., Buck, C.L. (2024. September). Associations between urinary perchlorate and thyroid health outcomes in Yuma County, Arizona. International Society of Environmental Epidemiology 2024 Conference.
- **Wilson, A.M.**, Hamilton, K.A., Beamer, P.I., Resnik, D.B., Wilfond, B. Presented by Chao, G. (2024, October). Community engagement in water reuse implementation and regulation: When and how? International Society of Exposure Science 2024 Conference.
- <u>Ashraf, A.,</u>° Lowe, A.A., Gerald, L.B., **Wilson, A.M.** (2024, October). Elementary school barriers and strategies for controlling the spread of respiratory viral disease. International Society of Exposure Science 2024 Conference.
- **Wilson, A.M.,** Mussio, I., Chilton, S. Presented by Ashraf, A. (2024, October). Risk-risk tradeoff scenarios among Oregon, U.S. registered nurses: Asthma and infection risk associated with surface hygiene practices. International Society of Exposure Science 2024 Conference.
- **Wilson, A.M.**, Morrison, D., Larkin, L., Hickenbottom, K., Shafae M., Sáez, A.E., Ikner, L.A., Betancourt, W., Norwood, R., Achilli, A. Risk perceptions of advanced water purification in a large metropolitan city in Arizona. Presented by H. Quon. (2024, December). Society for Risk Analysis 2024 Conference.
- **Wilson, A.M.,** Pham, N., Spicka, P., Fryd, M.M., Haas, M.S., Falbo, D.M., Jiang, H., Ashraf, A., Reynolds, K.A. Presented by M.H. Weir, (2024, December). Computational fluid dynamics and QMRA modeling of influenza A virus and rhinovirus transmission in shared children's bedrooms. Society for Risk Analysis 2024 Conference.

#### **AWARDED GRANTS & CONTRACTS**

#### Federal

Mentored Research Scientist Career Development Award (NIH Parent K01), NHLBI (PI: Wilson)

Period of Funding: 2024-2029 Total requested: \$725,200

**Title:** Work-related Asthma Risks for Nursing Staff Conducting Cleaning and Disinfection:

Translation of Risk-risk Tradeoff Methodology

Arizona Board of Regents Proposal (PI: Hamilton, Co-Is: Wilson, Halden, Driver, Conroy-Ben, Gerba, Betancourt, Ikner, Propper, Salanga)

Period of Funding: 2025-2027 Total requested: \$2,157,277

Title: ADEQ Opportunity Statement: Evaluate Contaminant Fate and Transport in Biosolids

American Lung Association Catalyst Award (PI: Wilson, Co-I: Lowe, Mentor: Gerald)

Period of Funding: 2023-2025 Total awarded: \$100,000

Title: Protecting asthmatic children's health by reducing respiratory viral infections in schools: A

novel risk analysis tool

US Army ERDC-CERL (PI: Achilli, Co-I: Wilson, Ikner, Betancourt, Saez, Farrell, Norwood,

Pan, Prevatt, Marquez, Shafae, Hickenbottom)

Period of Funding: 2023-2027

**US Army ERDC-CERL** 

**Total requested:** \$10,440,000 (Wilson: \$179,055)

**Title:** Water resiliency and self-sufficiency in the arid southwest

Phases I and II funded. Phases III and IV pending.

PRIDE Small Research Project, NHLBI (PI: Wilson)

Period of Funding: 12/01/2021-11/30/2022

**Total Award:** \$23,000

**Title:** Prevalence and risk perceptions of work-exacerbated asthma in environmental services (EVS) staff and registered nurses (RNs): A pilot study in long term care facilities in Tucson,

Arizona.

Centers for Disease Control and Prevention (Pls: Betancourt & Ikner, Co-I Wilson)

**Period of Funding:** 09/27/2021-09/26/2022

**Total Award:** \$349,673

**Title:** Assessment of SARS-CoV-2 Viability and Persistence in Sewage Samples across the United States Using In Vitro Cell Culture and Molecular Methods. Centers for Disease Control

and Prevention.

Southern California NIOSH Education and Research Center (PI: Wilson, Co-PI Lowe)

Period of Funding: 08/19/2021-08/18/2022.

**Total award:** \$10,000

**Title:** Inventorying barriers to COVID-19 intervention implementation and risk perceptions

among elementary school teachers.

International

Royal Society International Exchanges (PI: King, Co-PI Wilson)

Period of Funding: 08/04/2020-08/04/2021

**Total award:** £5,526.00 (~\$7,417)

Title: Modelling healthcare worker exposure from contaminated surface with influenza or

undiagnosed coronavirus during hospital patient care

#### Internal

University of Arizona Health Sciences Aegis Consortium for a Pandemic-Free Future (PI:

Bright, Co-Pls: Wilson, Gerba) Period of Funding: 2023-2024

Total awarded: \$76,901

**Title:** Development of a New Strategy for Quantifying the Environmental Transmission of Infectious Diseases in the Built Environment for Selecting Non-pharmaceutical Interventions

University of Arizona SensorLab Seed Grant (PI: Wilson)

**Period of Funding:** 12/2022-06/2023

Total awarded: \$23,669

Title: Improving CO<sub>2</sub> as a Respiratory Viral Transmission Risk Indicator

**UArizona Equipment Enhancement Fund (PI: Wilson, Co-I: Gerba)** 

Period of Funding: 12/02/2022-07/31/2023

Total awarded: \$83,660

Title: The invisible is visible: GRIMM Aerosol Think equipment for indoor and outdoor

monitoring applications.

Arizona Institute for Resilient Environments & Societies (PI: Ikner, Co-I: Wilson)

**Period of Funding:** 07/01/2022-06/30/2023

**Total award:** \$71,780

Title: Building Water Resource Resilience through an Academic-Water Utility Partnership

University of Arizona Health Sciences Career Development Award (PI: Wilson)

Period of Funding: 07/05/2021-07/04/2023

**Total award:** \$330,900

Title: Healthcare workers' asthma and infection risk-risk tradeoffs from cleaning and disinfection

activities