

## Curriculum Vitae

Gillian A. Tarr  
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### Education

|  |      |
|--|------|
| PhD, University of Washington. Epidemiology<br>Advisor: Dr. Amanda I. Phipps | 2017 |
| MHS, Johns Hopkins Bloomberg School of Public Health.<br>Epidemiology        | 2006 |
| BA, Bard College. Biology  | 2004 |

### Licensures and Certifications

#### *Certifications*

|   |                |
|---|----------------|
| Certified in Public Health (CPH), National Board of Public Health<br>Examiners. | 2008 - Present |
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### Fellowships, Residencies, and Visiting Engagements

#### *Fellowship*

|  |             |
|--|-------------|
| Postgraduate Fellowship<br>Alberta Innovates<br>Terminated early, September 2019                                     | 2019 - 2021 |
| Banting Postdoctoral Fellowship<br>Canadian Institutes of Health Research (CIHR)<br>Terminated early, September 2019 | 2019 - 2021 |
| Eyes High Postdoctoral Fellowship<br>University of Calgary<br>Terminated early, January 2019                         | 2017 - 2019 |

### Academic Appointments

|   |                |
|---|----------------|
| University of Minnesota<br>School of Public Health, Division of Environmental Health<br>Sciences: Assistant Professor | 2019 - Present |
| University of Calgary<br>Postdoctoral Fellow  | 2017 - 2019    |

### Current Membership in Professional Organizations

|   |                |
|---|----------------|
| * American Public Health Association    | 2023 - Present |
| Associate, Institute on the Environment | 2021 - Present |
| Society for Epidemiologic Research      | 2016 - Present |

## HONORS AND RECOGNITION

### External Sources

|  |      |
|--|------|
| ACHRI Trainee Travel Award, University of Calgary, Alberta Children's Hospital Research Institute  | 2018 |
| Institute Community Support Travel Award, Canadian Institutes of Health Research (CIHR)  | 2018 |
| IPDLN Student Travel Bursary, International Population Data Linkage Network  | 2018 |
| Predocotrual Ruth L. Kirschstein National Research Service Award, National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH)<br>Terminated early, September 2017 | 2017 |
| Travel Award, University of Washington, Department of Epidemiology   | 2016 |
| Travel Award, University of Washington, Graduate School Fund for Excellence and Innovation   | 2016 |
| Predocotrual Trainee, Biostatistics, Epidemiologic, and Bioinformatic Training in Environmental Health Training Grant, T32ES015459, National Institute of Environmental Health Sciences, NIH             | 2015 |
| Student Scholarship, Summer Institute in Statistics and Modeling in Infectious Diseases and Summer Institute in Statistical Genetics   | 2015 |
| Travel Award, University of Washington, Department of Epidemiology   | 2015 |

## RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

### Grants, Contract, Awards: External Sources

#### *Currently Funded*

- Award: Phylodynamics of Shiga Toxin-Producing Escherichia coli from Local Sources**  
Principal Investigator: Tarr, Gillian A.  
Status: Accepted  
Sponsoring Organization: NIH Nat'l Inst of Allergy & Infect Dis  
Sponsoring Organization Reference ID: 1K01AI168499-01  
Award Dates: May 2, 2022 - April 30, 2027  
Direct Amount: \$636,798.00  
Funded Percent Effort: 75%  
Purpose: Develop a framework for differentiating local from non-local STEC

#### *Pending/Submitted:*

- \*1. Proposal: A One Health framework for modeling transmission events and multi-host dynamics of leptospirosis using a spatially-explicit interface**  
Role: Co-Investigator  
Principal Investigator: Claudia Munoz-Zanzi (UMN SPH)  
Status: Submitted  
Sponsor: NSF National Science Foundation  
Submitted: 11/15/2023  
Requested Direct Costs: \$2,999,948

Effort: 2%

Purpose: Clarify the host and environmental processes that favor *Leptospira* transmission among host populations and the transmission pathways that lead to subsequent human infection

**2. Proposal: R01: Predicting Acute Gastroenteritis Etiology in Children**

Role: Principal Investigator

Status: Submitted

Sponsoring Organization: NIH Nat'l Inst of Allergy & Infect Dis

Date Submitted: December 2, 2022

Requested Amount: \$1,533,283.00

Percent Effort: 15%

Purpose: Research

**Other Grants, Awards, Gifts, or Endowment Earnings (Internal Sources)**

***Currently Funded***

**\*1. Award: Predicting Acute Gastroenteritis Etiology in Children**

Role: Principal Investigator

Status: Accepted

Sponsor: UMN SPH Office of Research SEED Award

Award Dates: June 1, 2023 - May 31, 2024

Direct amount: \$21,500

Funded effort: 0%

Purpose: This seed grant will enable us to generate preliminary data to address critiques raised in the recent review of our R01 submission.

**Previously Funded and Concluded**

**\*1. Award: Abundance of Shiga Toxin-producing Escherichia Coli (STEC) in Cattle and Association with Clinical Infections in the Same Geographic Region**

Role: Co-Investigator

Principal Investigator: Tim McAllister (Agriculture and Agri-Food Canada)

Sponsoring Organization: Beef Cattle Research Council

Date Proposal Submitted: November 2018

Award Dates: April 1, 2020 - March 31, 2023

Purpose: Characterize patterns of local Shiga toxin-producing *Escherichia coli* (STEC) transmission and identify genetic differences that may contribute to differential infectivity among STEC strains.

**\*2. Award: A Goldilocks Effect of Psychological Distress on Pandemic Fatigue? Stress, Social Vulnerability, and Protective Behavior**

Project Investigators: Tarr, Gillian A. (Principal Funded: 0%), Morris, Keeley (Funded: 25%)

Sponsoring Organization: Office of Vice President of Research

Institution: University of Minnesota

Date Proposal Submitted: February 2021

Award Dates: June 30, 2021 - January 15, 2023

Funded Percent Effort: 0%

Funded Amount for Entire Grant Period or Proposed Grant Period: \$37,133.00

**3. Award: COVID-19 Preparedness & Response Study**

Co-Principal Investigators: Gillian A. Tarr, Jesse Berman (UMN SPH)

Sponsoring Organization: Minnesota Population Center

Institution: University of Minnesota  
Date Proposal Submitted: May 2020  
Award Dates: June 1, 2020 - May 31, 2022  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$2,500.00  
Purpose: COVID-19 Rapid Response Seed Grant

4. **Award: Updraft Funding Proposal for the Creation of a Parkinson Disease Registry and Initial Studies to Address Its Causes and Genetic Susceptibility (PEDAL)**  
Co-Principal Investigators: Gillian A. Tarr, Timothy R. Church (UMN SPH)  
Sponsoring Organization: UMII MnDRIVE Updraft Grant  
Institution: University of Minnesota  
Date Proposal Submitted: April 2020  
Award Dates: April 13, 2020 - April 12, 2021  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$7,432.07  
Purpose: Expand COVID-19 Preparedness & Response Study to additional Parkinson's disease respondents.
5. **Award: How much social distance is enough? Family preparedness and responses to non-pharmacologic interventions during the COVID-19 pandemic**  
Co-Principal Investigators: Gillian A. Tarr, Marizen R. Ramirez (UMN SPH)  
Sponsoring Organization: Office of Academic Clinical Affairs  
Institution: University of Minnesota  
Date Proposal Submitted: March 17, 2020  
Award Dates: March 20, 2020 - March 19, 2021  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$10,000.00  
Purpose: COVID-19 Rapid Response Grant
6. **Award: Contribution and Interaction of Shiga Toxin Subtypes to *Escherichia coli* O157:H7 Virulence**  
Co-Principal Investigators: Gillian A. Tarr, Stephen B. Freedman (University of Calgary)  
Status: Closed  
Sponsoring Organization: Calgary Centre for Clinical Research  
Institution: University of Calgary  
Award Dates: July 4, 2019 - July 3, 2020  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$10,000.00  
Purpose: Estimated the effect on *E. coli* O157:H7 incidence of interaction between *stx1a* and *stx2a*.
7. **Award: Detection of *Clostridioides difficile* in Asymptomatic Children: A systematic review**  
Role: Co-Investigator  
Principal Investigator: Otto Vanderkooi (Dept of Pediatrics, University of Calgary)  
Sponsoring Organization: Alberta Health Services Emergency Strategic Clinical Network  
Institution: University of Calgary  
Award Dates: May 1, 2019 - April 30, 2020  
Funded Amount for Entire Grant Period or Proposed Grant Period: \$14,750.00  
Purpose: Synthesized the evidence on the prevalence of *C. difficile* in children without gastroenteritis.
8. **Award: Estimating the Burden of Viral Acute Gastroenteritis in Alberta's Children**  
Co-Principal Investigators: Gillian A. Tarr, Stephen B. Freedman (University of Calgary)  
Sponsoring Organization: Maternal Newborn Child & Youth Strategic Clinical Network  
Institution: University of Calgary  
Award Dates: April 1, 2018 - March 31, 2020

Funded Amount for Entire Grant Period or Proposed Grant Period: \$15,000.00  
Purpose: Estimated the burden of acute gastroenteritis in children <18 years in Alberta attributable to norovirus.

9. **Award: Contribution and Interaction of Shiga Toxin Subtypes to *Escherichia coli* O157:H7 Virulence**

Role: Principal Investigator

Status: Closed

Sponsoring Organization: Alberta Children's Hospital Research Institute

Institution: University of Calgary

Award Dates: August 28, 2018 - August 27, 2019

Funded Amount for Entire Grant Period or Proposed Grant Period: \$3,000.00

Purpose: Estimated the effect on *E. coli* O157:H7 incidence of interaction between *stx1a* and *stx2a*.

10. **Award: Performance of Commercial Molecular Tests for Rapid Detection of Shiga Toxin-producing *Escherichia coli* (STEC): A Systematic Review and Meta-analysis**

Co-Principal Investigators: Gillian A. Tarr, Stephen B. Freedman (University of Calgary)

Sponsoring Organization: Emergency Strategic Clinical Network

Institution: University of Calgary

Award Dates: May 1, 2018 - April 30, 2019

Funded Amount for Entire Grant Period or Proposed Grant Period: \$14,750.00

Purpose: Determined the relative performance of polymerase chain reaction and enzyme immunoassay tests for STEC.

**Not Funded Proposals**

\*1. **Proposal: The Impact of Climate Extremes on STEC Heterogeneity**

Role: Principal Investigator

Sponsoring Organization: Research Computing, Office of the Vice President for Research

Institution: University of Minnesota

Date Proposal Submitted: September 27, 2023

Requested Amount: \$49,305.00

\*2. **Proposal: Drivers in disparities of antibiotic use for acute gastroenteritis**

Role: Principal Investigator

Sponsor: Robert Wood Johnson Foundation

Submitted: August 15, 2023

Requested amount: \$0 (data access award)

\*3. **Proposal: Linking climate variability and cholera via intra-host immune-pathogen dynamics**

Co-Principal Investigators: Gillian Tarr; Harsh Vardhan Jain (Department of Mathematics & Statistics, University of Minnesota Duluth); Zannatun Noor (International Centre for Diarrheal Disease Research, Bangladesh),

Sponsoring Organization: Research Computing, Office of the Vice President for Research

Institution: University of Minnesota

Date Proposal Submitted: April 12, 2023

Requested Amount: \$119,892.00

\*4. **Proposal: K01 Administrative Supplement: The Impact of Climate Extremes on STEC Heterogeneity**

Role: Principal Investigator

Sponsoring Organization: NIH Nat'l Inst of Allergy & Infect Dis

Date Submitted: May 4, 2023  
Requested Amount: \$73,010.00

5. **Proposal: Zoonotic infections in agricultural workers, their families, and visitors to farm animal settings: surveillance and translation to prevention**

Role: Project Co-Investigator

Principal Investigator: Jeffrey B. Bender (UMN SPH)

Sponsoring Organization: CDC NAT'L INST FOR OCCUP SAFETY & HEALTH

Sponsoring Organization Reference ID: 2 U54OH010170-11-00

Award Dates: September 30, 2022 - September 29, 2023

Note: This was a proposal for a research project as part of the Upper Midwest Agricultural Safety and Health Center (UMASH).

6. **Proposal: Water and sanitation access as a critical pathway in the effect of climate change on diarrheal disease**

Role: Principal Investigator

Sponsoring Organization: Center for Global Health and Social Responsibility

Institution: University of Minnesota

Date Proposal Submitted: May 17, 2022

Requested Amount: \$25,000.00

7. **Proposal: R21: Predicting Acute Gastroenteritis Etiology in Children**

Role: Principal Investigator

Sponsoring Organization: National Institutes of Health (NIH)

Date Submitted: October 1, 2021

Requested Amount: \$394,313.00

Purpose: Develop predictive algorithms for identifying the etiologic agent of a child's gastroenteritis when presenting for care.

Impact score: 38

8. **Proposal: Predicting Acute Gastroenteritis Etiology in Children**

Co-Principal Investigators: Gillian A. Tarr, Jared Davis Huling (UMN SPH)

Sponsoring Organization: Thrasher Foundation

Date Proposal Submitted: July 8, 2021

Requested Amount: \$380,883.00

Purpose: Develop predictive algorithms for identifying the etiologic agent of a child's gastroenteritis when presenting for care.

9. **Proposal: Agricultural Components of Local Shiga Toxin-Producing Escherichia coli Transmission Systems**

Co-Principal Investigators: Gillian A. Tarr, Noelle Noyes (UMN College of Veterinary Medicine), Annalisa Hultberg (UMN Extension)

Sponsoring Organization: Healthy Foods Healthy Lives Institute

Institution: University of Minnesota

Date Proposal Submitted: May 27, 2021

Requested Amount: \$149,623.00

10. **Proposal: Zeroing in on Persistent Local Reservoirs of Shiga Toxin-Producing Escherichia coli**

Role: Principal Investigator

Sponsoring Organization: USDA National Institute of Food and Agriculture

Date Proposal Submitted: May 27, 2021

Requested Amount: \$649,826.00

Purpose: Use phylodynamics to differentiate reported Shiga toxin-producing *Escherichia coli* cases of local and non-local origin, identify agricultural products associated with locally derived cases.

11. **Proposal: The Impact of Trauma and Anxiety on COVID-19 Risk and Severe Outcomes**

Role: Principal Investigator

Sponsoring Organization: Robert Wood Johnson Foundation

Date Proposal Submitted: December 17, 2020

Purpose: Estimate the effect of pre-existing stress, trauma, and anxiety disorders on the risk of COVID-19 infection and severe outcomes in high-risk populations. Health Data for Action LOI

12. **Award: K01: Phylodynamics of Shiga Toxin-Producing *Escherichia coli* from Local Sources**

Role: Principal Investigator

Sponsoring Organization: NIH Nat'l Inst of Allergy & Infect Dis

Date Proposal Submitted: November 9, 2020

Requested Amount: \$686,722.00

Purpose: Use phylodynamics to differentiate reported Shiga toxin-producing *Escherichia coli* cases of local and non-local origin, and identify pathogen, host, and environmental correlates of locally derived cases.

Impact score: 29

13. **Proposal: R21: Hair as biological matrix for assessing changes in exposure to air pollution and psychosocial stress among urban adults during the COVID-19 pandemic**

Role: Co-Investigator

Principal Investigator: Jesse Berman (UMN SPH)

Sponsoring Organization: NIH Natl Institute of Environmental Health Sciences

Date Submitted: June 29, 2020

Purpose: Detect changes in air pollution and stress levels exposures in hair resulting from the pandemic.

Impact score: 30

14. **Proposal: K01: Phylodynamics and Spatial Patterns of Shiga Toxin-Producing *Escherichia coli* from Local Sources**

Role: Principal Investigator

Sponsoring Organization: NIH Nat'l Inst of Allergy & Infect Dis

Date Submitted: February 5, 2020

Percent Effort: 75%

Purpose: Use phylodynamics to differentiate reported Shiga toxin-producing *Escherichia coli* cases of local and non-local origin, and identify social, demographic, and environmental correlates of locally derived cases.

Impact score: 36

15. **Proposal: R03: Abundance of Shiga Toxin-producing *Escherichia coli* (STEC) in Cattle and Association with Clinical Infections in the Same Geographic Region**

Role: Principal Investigator

Sponsoring Organization: NIH Nat'l Inst of Allergy & Infect Dis

Date Submitted: October 11, 2019

Percent Effort: 5%

Purpose: Characterize patterns of local Shiga toxin-producing *Escherichia coli* (STEC) transmission and identify genetic differences that may contribute to differential infectivity among STEC strains.

Not discussed

16. **Proposal: Abundance of Shiga Toxin-producing Escherichia Coli (STEC) in Cattle and Association with Clinical Infections in the Same Geographic Region**

Role: Co-Investigator

Principal Investigator: Tim McAllister (Agriculture and Agri-Food Canada)

Status: Not Funded

Sponsoring Organization: Alberta Agriculture and Forestry

Date Proposal Submitted: April 8, 2019

Purpose: Characterize patterns of local Shiga toxin-producing Escherichia coli (STEC) transmission and identify genetic differences that may contribute to differential infectivity among STEC strains.

AAF dissolved their grant-funding section in 2020, while this was under review.

**Publications**

*Caret (^) – indicates co-author*

*Underline - indicates student author*

**Peer-Reviewed Journal Article**

- \*1. Rau, A., Tarr, G. A.M., Baldomero, A. K., Wendt, C. H., Alexander, B. H., & Berman, J. D. Heat and cold wave related mortality risk among United States Veterans with chronic obstructive pulmonary disease (COPD): a case-crossover study. *Environ Health Perspect.* [Accepted:2024]  
Role: Methodology, writing - review & editing
- \*2. Tarr, G. A.M., Rounds, J., Vachon, M. S., Smith, K., Medus, C., & Hedberg, C. W. (2023). Differences in risk factors for transmission among Shiga toxin-producing Escherichia coli serogroups and stx profiles. *J Infect*, 87(6), 498-505. [doi: 10.1016/j.jinf.2023.10.017](https://doi.org/10.1016/j.jinf.2023.10.017)  
Role: Conceptualization, methodology, software, validation, formal analysis, data curation, writing - original draft, visualization, supervision, funding acquisition
- \*3. Zhuo, R., Freedman, S. B., Xie, J., Charlton, C., Plitt, S., Croxen, M. A., . . . Tarr, G. A.M., . . . Pang, X.-L. (2023). Molecular epidemiology of rotavirus among children in Western Canada: Dynamic changes in genotype prevalence in four consecutive seasons. *J Med Virol*, 95(8), e29028. [doi: doi/10.1002/jmv.29028](https://doi.org/10.1002/jmv.29028)  
Role: Formal analysis, writing - review & editing
- \*4. Leach, D., Morris, K. J., Fiecas, M. B., & Tarr, G. A.M. (2023). Sociodemographic effects on pandemic fatigue are multifaceted and context-specific: A longitudinal analysis of physical distancing adherence. *J Public Health Res*, 12(3), 1-12. [doi: 10.1177/22799036231189308](https://doi.org/10.1177/22799036231189308)  
Role: Conceptualization, methodology, software, validation, investigation, resources, review & editing, visualization, supervision, project administration, funding acquisition
5. Tarr, G. A.M., Morris, K. J., Harding, A. B., Jacobs, S., Smith, M. K., Church, T. R., . . . Ramirez, M. R. (2022). Cognitive factors influenced physical distancing adherence during the COVID-19 pandemic in a population-specific way. *PLOS One*, 17(5), e0267261. PubMed Central ID Number: PMC9064111 [doi: 10.1371/journal.pone.0267261](https://doi.org/10.1371/journal.pone.0267261)  
Role: Conceptualization, methodology, software, validation, formal analysis, investigation, resources, writing - original draft, visualization, supervision, project administration, funding acquisition
6. Tarr, G. A.M., Persson, D. J., Tarr, P. I., & Freedman, S. B. (2022). Enteric Pathogen Testing Importance for Children with Acute Gastroenteritis: a Modified Delphi Study. *Microbiol Spectr*, 10(5), e0186422. PubMed Central ID Number: PMC9602993 [doi: 10.1128/spectrum.01864-22](https://doi.org/10.1128/spectrum.01864-22)  
Role: Conceptualization, methodology, validation, investigation, writing - review & editing, visualization, supervision, project administration, funding acquisition



7. Bumunang, E. W., Zaheer, R., Stanford, K., Laing, C., Niu, D., Guan, L. L., . . . **Tarr, G. A.M.**, McAllister, T. A. (2022). Genomic Analysis of Shiga Toxin-Producing *E. coli* O157 Cattle and Clinical Isolates from Alberta, Canada. *Toxins*, 14(9). PubMed Central ID Number: PMC9505746 [doi: 10.3390/toxins14090603](https://doi.org/10.3390/toxins14090603)  
Role: Conceptualization, investigation, writing - review & editing, funding acquisition
8. Zhuo<sup>^</sup>, R., **Tarr<sup>^</sup>, G. A.**, Xie, J., Freedman, S. B., Payne, D. C., Lee, B. E., . . . Pang, X.-L. (2021). Detection and Clinical Implications of Monovalent Rotavirus Vaccine-Derived Virus Strains in Children with Gastroenteritis in Alberta, Canada. *J Clin Microbiol*, 59(11), e0115421. PubMed Central ID Number: PMC8525562 [doi: 10.1128/JCM.01154-21](https://doi.org/10.1128/JCM.01154-21)  
Role: Methodology, formal analysis, investigation, writing - review & editing
9. Tougas, S., Lodha, N., Vandermeer, B., Lorenzetti, D. L., Tarr, P. I., **Tarr, G. A.**, . . . Freedman, S. B. (2021). Prevalence of Detection of *Clostridioides difficile* Among Asymptomatic Children: A Systematic Review and Meta-analysis. *JAMA Pediatr*, 175(10), e212328. PubMed Central ID Number: PMC8329794 [doi: 10.1001/jamapediatrics.2021.2328](https://doi.org/10.1001/jamapediatrics.2021.2328)  
Role: Methodology, writing - review & editing
10. **Tarr<sup>^</sup>, G. A.**, Downey<sup>^</sup>, E., Pang, X., Zhou, R., Strickland, A., Ali, S., . . . Freedman, S. (2021). Clinical Profiles of Childhood Astrovirus-, Sapovirus-, and Norovirus-Associated Acute Gastroenteritis in Pediatric Emergency Departments in Alberta, 2014-2018. *J Infect Dis*, [Epub ahead of print]. [doi: 10.1093/infdis/jiab429](https://doi.org/10.1093/infdis/jiab429)  
Role: Conceptualization, methodology, formal analysis, data curation, writing - original draft, visualization
11. **Tarr, G. A.**, & Tarr, P. I. (2021). Pediatric Enteric Diagnostic Stewardship: The Right Test in the Right Context. *Pediatrics*, 147(5). [doi: 10.1542/peds.2020-044941](https://doi.org/10.1542/peds.2020-044941)  
Role: Conceptualization, writing - original draft
12. Lin, C. Y., Xie, J., Freedman, S. B., McKee, R. S., Schnadower, D., Tarr, P. I., . . . **Tarr, G. A.** (2021). Predicting Adverse Outcomes for Shiga Toxin-Producing *Escherichia coli* Infections in Emergency Departments. *J Pediatr*, 232, 200-206.e4.. PubMed Central ID Number: PMC8084908 [doi: 10.1016/j.jpeds.2020.12.077](https://doi.org/10.1016/j.jpeds.2020.12.077)  
Role: Conceptualization, methodology, validation, writing - review & editing, supervision, project administration
13. Vachon, M. S., Khalid, M., **Tarr, G. A.**, Hedberg, C., & Brown, J. (2020). Farm animal contact is associated with progression to Hemolytic uremic syndrome in patients with Shiga toxin-producing *Escherichia coli* - Indiana, 2012-2018. *One Health*, 11, 100175. PubMed Central ID Number: PMC7772627 [doi: 10.1016/j.onehlt.2020.100175](https://doi.org/10.1016/j.onehlt.2020.100175)  
Role: Methodology, writing - review & editing
14. Bording-Jorgensen, M., Parsons, B. D., **Tarr GAM**, Shah-Gandhi, B., Lloyd, C., & Chui, L. (2020). Association of Ct Values from Real-Time PCR with Culture in Microbiological Clearance Samples for Shiga Toxin-Producing *Escherichia coli* (STEC). *Microorganisms*, 8(11). PubMed Central ID Number: PMC7698137 [doi: 10.3390/microorganisms8111801](https://doi.org/10.3390/microorganisms8111801)  
Role: Methodology, formal analysis, writing - review & editing
15. Xie, J., Pang, X. L., **Tarr GAM**, Mu, Y., Zhuo, R., Chui, L., . . . Freedman, S. B. (2020). Influenza virus detection in the stool of children with acute gastroenteritis. *J Clin Virol*, 131, 104565. PubMed Central ID Number: PMC7494534 [doi: 10.1016/j.jcv.2020.104565](https://doi.org/10.1016/j.jcv.2020.104565)  
Role: Methodology, writing - review & editing

16. **Tarr GAM**, Pang, X. L., Zhuo, R., Lee, B. E., Chui, L., Ali, S., . . . Freedman, S. B. (2020). Attribution of Pediatric Acute Gastroenteritis Episodes and Emergency Department Visits to Norovirus GI and GII. *J Infect Dis*. [doi: 10.1093/infdis/jiaa391](https://doi.org/10.1093/infdis/jiaa391)  
Role: Conceptualization, methodology, software, formal analysis, investigation, data curation, writing - original draft, visualization, funding acquisition
17. **Tarr GAM**, [Lin, C. Y.](#), Vandermeer, B., Lorenzetti, D. L., Tarr, P. I., Chui, L., . . . Freedman, S. B. (2020). Diagnostic Test Accuracy of Commercial Tests for Detection of Shiga Toxin-Producing *Escherichia coli*: A Systematic Review and Meta-Analysis. *Clin Chem*, 66(2), 302-315. [doi: 10.1093/clinchem/hvz006](https://doi.org/10.1093/clinchem/hvz006)  
Role: Conceptualization, methodology, formal analysis, investigation, data curation, writing - original draft, visualization, supervision, funding acquisition
18. **Tarr GAM**, Tarr, P. I., & Freedman, S. B. (2019). Clinical interpretation of enteric molecular diagnostic tests. *Clin Microbiol Infect*, 25(12), 1454-1456. [doi: 10.1016/j.cmi.2019.08.018](https://doi.org/10.1016/j.cmi.2019.08.018)  
Role: Conceptualization, writing - original draft
19. **Tarr GAM**, Stokowski, T., Shringi, S., Tarr, P. I., Freedman, S. B., Oltean, H. N., . . . Chui, L. (2019). Contribution and Interaction of Shiga Toxin Genes to *Escherichia coli* O157:H7 Virulence. *Toxins*, 11(10). PubMed Central ID Number: PMC6832461 [doi: 10.3390/toxins11100607](https://doi.org/10.3390/toxins11100607)  
Role: Conceptualization, methodology, formal analysis, investigation, data curation, writing - original draft, funding acquisition
20. **Tarr GAM**, Chui, L., Lee, B. E., Pang, X. L., Ali, S., Nettel-Aguirre, A., . . . Freedman, S. B. (2019). Performance of Stool-testing Recommendations for Acute Gastroenteritis When Used to Identify Children With 9 Potential Bacterial Enteropathogens. *Clin Infect Dis*, 69(7), 1173-1182. PubMed Central ID Number: PMC7348586 [doi: 10.1093/cid/cjy1021](https://doi.org/10.1093/cid/cjy1021)  
Role: Conceptualization, methodology, formal analysis, data curation, writing - original draft
21. Xie, J., **Tarr GAM**, Ali, S., Chui, L., Pang, X. L., Lee, B. E., . . . Freedman, S. B. (2019). Pigment Visibility on Rectal Swabs Used To Detect Enteropathogens: a Prospective Cohort Study. *J Clin Microbiol*, 57(6). PubMed Central ID Number: PMC6535614 [doi: 10.1128/JCM.00213-19](https://doi.org/10.1128/JCM.00213-19)  
Role: Conceptualization, methodology, validation, writing - review & editing
22. **Tarr GAM**, [Lin, C. Y.](#), Lorenzetti, D., Chui, L., Tarr, P. I., Hartling, L., . . . Freedman, S. B. (2019). Performance of commercial tests for molecular detection of Shiga toxin-producing *Escherichia coli* (STEC): a systematic review and meta-analysis protocol. *BMJ Open*, 9(3), e025950. PubMed Central ID Number: PMC6430022 [doi: 10.1136/bmjopen-2018-025950](https://doi.org/10.1136/bmjopen-2018-025950)  
Role: Conceptualization, methodology, writing - original draft.
23. **Tarr GAM**, Oltean, H. N., Phipps, A. I., Rabinowitz, P., & Tarr, P. I. (2018). Case definitions of hemolytic uremic syndrome following *Escherichia coli* O157:H7 infection vary in validity. *Int J Med Microbiol*, 308(8), 1121-1127. PubMed Central ID Number: PMC6260930 [doi: 10.1016/j.ijmm.2018.10.002](https://doi.org/10.1016/j.ijmm.2018.10.002)  
Role: Conceptualization, methodology, formal analysis, investigation, data curation, writing - original draft, project administration, funding acquisition
24. **Tarr GAM**, Oltean, H. N., Phipps, A. I., Rabinowitz, P., & Tarr, P. I. (2018). Strength of the association between antibiotic use and hemolytic uremic syndrome following *Escherichia coli* O157:H7 infection varies with case definition. *Int J Med Microbiol*, 308(7), 921-926. PubMed Central ID Number: PMC6287940 [doi: 10.1016/j.ijmm.2018.06.009](https://doi.org/10.1016/j.ijmm.2018.06.009)  
Role: Conceptualization, methodology, formal analysis, investigation, data curation, writing - original draft, project administration, funding acquisition

25. **Tarr GAM**, Shringi, S., Oltean, H. N., Mayer, J., Rabinowitz, P., Wakefield, J., . . . Phipps, A. I. (2018). Importance of case age in the purported association between phylogenetics and hemolytic uremic syndrome in *Escherichia coli* O157:H7 infections. *Epidemiol Infect*, *146*(12), 1550-1555. PubMed Central ID Number: PMC6092231 [doi: 10.1017/S0950268818001632](https://doi.org/10.1017/S0950268818001632)  
Role: Conceptualization, methodology, formal analysis, data curation, writing - original draft, funding acquisition
26. Mishra, S., Ulep, V., Marquez, P., Isenman, P., Fuchs, A., Llorente, B., . . . **Tarr, G.**, . . . Jha, P. (2018). The health, poverty and financial consequences of a cigarette price increase among 500 million male smokers in 13 middle-income countries. *BMJ*.  
Role: Methodology, software, writing - review & editing
27. Postolovska, I., Lavado, R., **Tarr, G.**, & Verguet, S. (2018). The Health Gains, Financial Risk Protection Benefits, and Distributional Impact of Increased Tobacco Taxes in Armenia. *Health Syst Reform*.  
Role: Methodology, software, writing - review & editing
28. **Tarr GAM**, Shringi, S., Phipps, A. I., Besser, T. E., Mayer, J., Oltean, H. N., . . . Rabinowitz, P. (2018). Geogenomic Segregation and Temporal Trends of Human Pathogenic *Escherichia coli* O157:H7, Washington, USA, 2005-2014<sup>1</sup>. *Emerg Infect Dis*, *24*(1), 32-39. PubMed Central ID Number: PMC5749469 [doi: 10.3201/eid2401.170851](https://doi.org/10.3201/eid2401.170851)  
Role: Conceptualization, methodology, formal analysis, data curation, writing - original draft, visualization, funding acquisition
29. Verguet, S., **Tarr, G.**, Gauvreau, C., Mishra, S., Jha, P., Liu, L., . . . Zhao, K. (2017). Distributional benefits of tobacco tax and smoke-free workplaces in China: a modeling study. *J Glob Health*.  
Role: Methodology, software, formal analysis, writing - review & editing
30. Westley, E. W., Greene, S. A., **Tarr, G. A.**, Ryman, T. K., Gilbert, S. S., & Hawes, S. E. (2016). Strengthening paper health register systems: strategies from case studies in Ethiopia, Ghana, South Africa and Uganda. *J Glob Health*, *6*(2), 020303. PubMed Central ID Number: PMC4803012 [doi: 10.7189/jogh-06-020303](https://doi.org/10.7189/jogh-06-020303)  
Role: Conceptualization, methodology, investigation, data curation, writing - review & editing
31. Sharma, M., Ying, R., **Tarr, G.**, & Barnabas (2015). Systematic review and meta-analysis of community and facility-based HIV testing to address linkage to care gaps in sub-Saharan Africa. *Nature*.  
Role: Investigation, data curation, writing - review & editing
32. **Tarr, G. A.**, Eickhoff, J. C., Koepke, R., Hopfensperger, D. J., Davis, J. P., & Conway, J. H. (2013). Using a bayesian latent class model to evaluate the utility of investigating persons with negative polymerase chain reaction results for pertussis. *Am J Epidemiol*, *178*(2), 309-18. PubMed Central ID Number: PMC3968301 [doi: 10.1093/aje/kws465](https://doi.org/10.1093/aje/kws465)  
Role: Conceptualization, methodology, formal analysis, investigation, data curation, writing - original draft
33. Hicks, P., **Tarr, G. A.**, & Hicks, X. P. (2007). Reminder cards and immunization rates among Latinos and the rural poor in Northeast Colorado. *J Am Board Fam Med*, *20*(6), 581-6. [doi: 10.3122/jabfm.2007.06.060071](https://doi.org/10.3122/jabfm.2007.06.060071)  
Role: Conceptualization, methodology, formal analysis, investigation, data curation, writing - original draft

### **Abstract**

1. **Tarr, G.**, & Freedman, S. (2018). *Linking Provincial and Prospective Cohort Study Data to Estimate the Incidence and Healthcare Burden of Viral Gastroenteritis*. *Int J Popul Data Sci*.  
Conceptualization, methodology, formal analysis, data curation, writing - original draft

### **Publications Submitted or in Progress**

Underline - indicates student author

### **Peer-Reviewed Journal Article**

- \*1. **Tarr, G. A.M.**, Chui, L., Stanford, K., Zaheer, R., Bumunang, E., Freedman, S. B., . . . McAllister, T. Persistent cross-species transmission systems dominate Shiga toxin-producing *Escherichia coli* O157:H7 epidemiology in a high incidence region: a genomic epidemiology study. *The Lancet Microbe*. [Submitted:2024]
- \*2. Sumner, M., **Tarr, G. A.M.**, Xie, J., Mater, A., Winston, K., Gravel, J., . . . Freedman, S. B. Social Behaviors Associated with SARS-CoV-2 Positivity Among Children Seeking Emergency Care. *Pediatrics*. [Submitted:2024]
- \*3. Vachon, M. S. (Lead Author), Hedberg, C., Rounds, J., Smith, K., Medus, C., & **Tarr, G. A.M.** Farm Animal Exposure Setting Impacts Hemolytic Uremic Syndrome Risk Among Cases Infected with Shiga toxin-producing *Escherichia coli* — Minnesota, 2010-2019. *Epidemiol Infect*. [Submitted:2024]  
First submission returned with minor revisions; revisions now under review
- \*4. Rau, A., Baldomero, A. K., Wendt, C. H., **Tarr, G. A.M.**, Alexander, B. H., & Berman, J. D. Comorbidities, tobacco exposure, and geography: added risk factors of heat and cold wave related mortality among United States Veterans with COPD. *Annals of ATS*. [Submitted:2023]
- \*5. Morris, K. J., Ashida, S., Ramirez, M. R., & **Tarr, G. A.M.** Stress as a driver of early COVID-19 pandemic fatigue: The time-varying relationship between stress and physical distancing adherence. *Am J Epidemiol*. [Submitted:2023]
- \*6. Rau, A., Baldomero, A. K., Bell, J. E., Rennie, J., Wendt, C. H., Tarr, G. A.M., . . . Berman, J. D. Mortality During Compound Heatwaves and Drought in Patients with Chronic Obstructive Pulmonary Disease. *Sci Rep*. [Submitted:2023]
- \*7. Harding, A. B., **Tarr, G. A.M.**, Berman, J. D., Erickson, D. J., & Ramirez, M. R. Association between Public Safety Power Shutoffs and motor vehicle crashes. *J Safety Res*. [Submitted:2023]
- \*8. **Tarr, G. A.M.**, Ward, C., Rounds, J., Finical, W., & Smith, K. Non-O157 and O157 Shiga toxin-producing *Escherichia coli* differ in their spatial association with ruminants. [In Preparation; Not Yet Submitted:2023]
- \*9. Harding, A. B., **Tarr, G. A.M.**, & Ramirez, M. R. Only who can prevent forest fires? Causes of a subset of wildfires in California, 2010-2021. *Nat Hazards Rev*. [Submitted:2023]
10. Vachon, M. S., Peterson, H. H., Bender, J. B., Smith, K., **Tarr, G. A.M.**, & Hedberg, C. W. Social Influence Impacts Handwashing Behavior in Adults at Animal Contact Venues: A Discrete Choice Experiment. [In Preparation; Not Yet Submitted:2022]

## **Invited Presentations, Posters, and Exhibits**

Underline - indicates student presenter

### ***Didactic Seminar***

1. **Tarr, G. A.**, "Improving Your Academic Writing Experience: Mindset, Resources, and Strategies," T32 Cancer Health Disparities Seminar University of Minnesota, Minneapolis, Minnesota. (October 28, 2022). *Invited*.
2. **Tarr, G. A.M.**, "Recent Insights into Shiga Toxin-Producing Escherichia coli Virulence," Microbiology Club University of Minnesota, Minneapolis, Minnesota. (March 22, 2021). *Invited*.
3. **Tarr, G. A.**, "Recent Insights into Shiga Toxin-Producing Escherichia coli Transmission and Virulence," Veterinary Public Health & Preventive Medicine Residency Rounds University of Minnesota, St. Paul, Minnesota. (November 13, 2020). *Invited*.

### ***Poster***

1. **Tarr, G. A.M.**, Morris, K. J., Leach, D., "Protective Behaviors and Pandemic Fatigue: The roles of preparation, situation, and stress," MPC Population Dynamics Barn-raising: Building Interdisciplinary Collaborations for Population Dynamics COVID Research Minnesota Population Center, Minneapolis, Minnesota, United States. (November 8, 2021). *Invited*.

### ***Presentation/Talk***

1. **Tarr, G. A.M.**, "Understanding Shiga Toxin-Producing Escherichia coli Maintenance, Transmission, and Outcomes," IonE Annual Institute on the Environment, Minneapolis, Minnesota, United States. (September 24, 2021). *Invited*.
2. **Tarr, G. A.**, "Zeroing in on the Source of Infection: Implications for Disease Risk and Virulence," VTEC Online 2021 VTEC. (May 11, 2021). *Invited. Peer-reviewed/refereed*.
3. **Tarr, G. A.M.**, "Self-Efficacy Drives Social Distancing Compliance, But What Drives Self-Efficacy?," Research Day School of Public Health, University of Minnesota, Minneapolis, Minnesota. (April 15, 2021). *Invited*.
4. **Tarr, G. A.**, Berman, J., "Patterns of Psychological Distress During the COVID-19 Pandemic," Minnesota Demography and Aging Seminar Minnesota Population Center, Minneapolis, Minnesota. (November 9, 2020). *Invited*.
5. **Tarr, G. A.**, "Local Transmission of Human Pathogenic Escherichia coli," Veterinary Diagnostic Laboratory Seminar University of Minnesota, St. Paul, Minnesota. (February 27, 2020). *Invited*.
6. Lee, B., Pang, X., Zhuo, R., Xie, J., Pabbaraju, Parson, B., Chui, L., Lowerison, Kim, K., **Tarr, G. A.**, Ali, S., Vanderkooi, O., Berenger, B., Freedman, S. "Alberta Provincial Pediatric Enteric Infection Team (APPETITE): a 4-year gastroenteritis prospective study from patient to the laboratory.," 7th International Calicivirus Conference MDPI/Viruses, Sydney, Australia. (October 13, 2019). *Invited*.
7. **Tarr, G. A.** "Challenges in Detecting the Etiologic Agent in Pediatric Gastroenteritis," Child Health Research Symposium 2019 Alberta Children's Hospital Research Institute, University of Calgary, Calgary, Alberta, Canada. (May 29, 2019). *Invited*.
8. **Tarr, G. A.** "Norovirus Visit Rates in Alberta," APPETITE Symposium, Canmore, Alberta, Canada. (March 1, 2019). *Invited*.

9. **Tarr, G. A.** "Linking Provincial and Prospective Cohort Study Data to Estimate the Incidence and Healthcare Burden of Viral Gastroenteritis," APPETITE Seminar Series, Calgary, Alberta, Canada. (November 7, 2018). *Invited.*
10. **Tarr, G. A.** "Phylogenetics of Escherichia coli O157:H7: Implications for distribution and virulence," Microbiology Section Provincial Laboratory for Public Health, Edmonton, Alberta, Canada. (June 14, 2018). *Invited.*
11. **Tarr, G. A.** "Targeted testing of children with diarrhea: Predicting bacteria detection," APPETITE Symposium, Edmonton, Alberta, Canada. (March 2, 2018). *Invited.*

### **Presentations, Posters, and Exhibits**

Underline - indicates student presenter

#### **Poster**

- \*1. **Tarr, G. A.M.,** Chui, L., Bumunang, E. W., Zaheer, R., Stanford, K., Freedman, S. B., McAllister, T. A., "Close relationship of Shiga toxin-producing Escherichia coli O157:H7 from humans and beef cattle in a single high incidence geographic region," Epidemics, Bologna, Italy. (November 2023). *Peer-reviewed/refereed.*
- \*2. **Tarr, G. A.M.,** Ward, C., Rounds, J., Smith, K., "The role of animal density, seasonality, and strain in increasing risk for Shiga toxin-producing Escherichia coli infections," Epidemics, Bologna, Italy. (November 2023). *Peer-reviewed/refereed.*
- \*3. Rau, A., Wendt, C. H., **Tarr, G. A.M.,** Alexander, B. H., Baldomero, A. K., Berman, J. D., "Heat and cold waves increase risk of mortality among U.S. Veterans with COPD," International Society for Environmental Epidemiology North America Chapter Conference International Society for Environmental Epidemiology, Corvallis, Oregon. (June 2023). *Peer-reviewed/refereed.*
- \*4. Morris, K. J., **Tarr, G. A.M.,** "What Pandemic? Stress as Demotivation for Adhering to Public Health Guidelines to Reduce Contacts During the COVID-19 Pandemic," SER Society of Epidemiologic Research, Portland, Oregon, United States. (June 2023). *Peer-reviewed/refereed.*
- \*5. Rau, A., Baldomero, A. K., Wendt, C. H., **Tarr, G. A.M.,** Alexander, B. H., Berman, J. D., "Heat and cold waves increase risk of mortality among U.S. Veterans with Chronic Obstructive Pulmonary Disease," VA Research Week Veterans Affairs Medical Center, Minneapolis, Minnesota. (June 2023). *Peer-reviewed/refereed.*
- \*6. Vachon, M. S., Hedberg, C., Rounds, J., Smith, K., Medus, C., **Tarr, G. A.M.,** "Farm Animal Exposure Setting Impacts Hemolytic Uremic Syndrome Risk Among Cases Infected with Shiga toxin-producing Escherichia coli— Minnesota, 2010- 2019," VTEC 2023, Banff, Alberta, Canada. (May 2023). *Peer-reviewed/refereed.*  
Abstract was accepted and student received a travel award, but illness precluded her from presenting her poster at the conference.
- \*7. **Tarr, G. A.M.,** Chui, L., Bumunang, E. W., Uz Zaman, S., Zaheer, R., Stanford, K., McAllister, T. A., "Phylogenetic Examination of the Risk of Persistent Local Clusters of E. coli O157:H7," VTEC 2023, Banff, Alberta, Canada. (May 2023). *Peer-reviewed/refereed.*
- \*8. Bumunang, E. W., McAllister, T. A., Zaheer, R., Niu, Y. D., Chui, L., Guan, L., Laing, C., **Tarr, G. A.M.,** Stanford, K., "Shiga toxin-carrying bacteriophage insertion site genotyping in Shiga toxin-producing Escherichia coli (STEC) O157:H7 cattle and clinical isolates from Alberta, Canada," VTEC 2023, Banff, Alberta, Canada. (May 2023). *Peer-reviewed/refereed.*

- \*9. Vachon, M. S., Hedberg, C., Rounds, J., Smith, K., Medus, C., **Tarr, G. A.M.**, "Farm Animal Exposure Setting Impacts Hemolytic Uremic Syndrome Risk Among Cases Infected with Shiga toxin-producing *Escherichia coli*— Minnesota, 2010- 2019," SPH Research Day University of Minnesota School of Public Health, Minneapolis, Minnesota. (April 2023). *Peer-reviewed/refereed*.
- \*10. Rau, A., Baldomero, A. K., Wendt, C. H., **Tarr, G. A.M.**, Alexander, B. H., Berman, J. D., "Heat and cold waves increase risk of mortality among U.S. Veterans with Chronic Obstructive Pulmonary Disease," SPH Research Day University of Minnesota School of Public Health, Minneapolis, Minnesota. (April 2023). *Peer-reviewed/refereed*.
- \*11. Johnson, J., **Tarr, G. A.M.**, Leah, B., "Non-Typhoidal Salmonellosis Among Minnesotans Who Reported Food Animal Contact, 2012-2021," SPH Research Day University of Minnesota School of Public Health, Minneapolis, Minnesota. (April 2023). *Peer-reviewed/refereed*.  
Won 2nd place in Master's category
12. Morris, K. J., **Tarr, G. A.**, "Potential Mechanisms of Pandemic Fatigue: The Time-Varying Relationship Between Stress and Average Contacts in the COVID-19 Pandemic," APHA Annual Meeting American Public Health Association, Boston, Massachusetts. (November 7, 2022). *Peer-reviewed/refereed*.
13. Leach, D., Morris, K. J., Fiecas, M., **Tarr, G. A.**, "Nuances in Patterns of Pandemic Fatigue by Sociodemographic Characteristics," IAPHS Annual Meeting Interdisciplinary Association for Population Health Science, Minneapolis, Minnesota. (September 20, 2022). *Peer-reviewed/refereed*.
14. Leach, D., Morris, K. J., Fiecas, M., **Tarr, G. A.**, "Nuances in Patterns of Pandemic Fatigue by Sociodemographic Characteristics," SER Annual Meeting Society for Epidemiologic Research, Chicago, Illinois. (June 16, 2022). *Peer-reviewed/refereed*.
15. **Tarr, G. A.M.**, "Exploring STEC Subtype-Specific Exposures," SER Annual Meeting Society for Epidemiologic Research, Chicago, Illinois. (June 15, 2022). *Peer-reviewed/refereed*.
16. **Tarr, G. A.**, Pang, X.-L., Lee, B., Chui, L., Ali, S., MacDonald "Emergency Department Visits and Inpatient Hospitalizations Associated with Viral Gastroenteritis," SER Annual Meeting Society for Epidemiologic Research, Minneapolis, Minnesota. (June 2019). *Peer-reviewed/refereed*.
17. **Tarr, G. A.**, Lin, C., Vandermeer, Lorenzetti, D., Chui, L., Tarr, P., Hartling, L., Freedman, S. "Performance of Commercial Enzyme Immunoassay and Polymerase Chain Reaction Tests for Rapid Detection of Shiga Toxin-producing *Escherichia coli*: A Systematic Review and Meta-Analysis," SER Annual Meeting Society for Epidemiologic Research. (June 2019). *Peer-reviewed/refereed*.
18. **Tarr, G. A.**, Pang, X.-L., Lee, B., Chui, L., Ali, S., MacDonald, S., Freedman, S. "Emergency Department Visits and Inpatient Hospitalizations Associated with Viral Gastroenteritis," PAS Meeting Pediatric Academic Societies (PAS), Baltimore, Maryland. (April 2019). *Peer-reviewed/refereed*.
19. Xie, J., **Tarr, G. A.**, Ali, S., Chui, L., Pang, X.-L., Lee, B., Vanderkooi, O., Tarr, P., Berenger, B., Kim, Freedman, S. "Feces Visibility on Rectal Swabs Used to Detect Enteropathogens: A Prospective Cohort Study," PAS Meeting Pediatric Academic Societies (PAS), Baltimore, Maryland. (April 2019). *Peer-reviewed/refereed*.
20. **Tarr, G. A.**, Zhuo, R., Pang, X., Lee, B., Chui, L., Ali, S., Freedman, S. "Natural History of Astrovirus- and Sapovirus-associated Gastroenteritis in Children Visiting the Emergency Department," PAS Meeting Pediatric Academic Societies (PAS), Baltimore, Maryland. (April 2019). *Peer-reviewed/refereed*.

21. **Tarr, G. A., Lin, C.,** Vandermeer, Lorenzetti, D., Chui, Tarr, P., Hartling, Freedman, S. "Performance of Commercial Enzyme Immunoassay and Polymerase Chain Reaction Tests for Rapid Detection of Shiga Toxin-producing Escherichia coli: A Systematic Review and Meta-Analysis," PAS Meeting Pediatric Academic Societies (PAS), Baltimore, Maryland. (April 2019). *Peer-reviewed/refereed.*
22. **Lin, C.,** Freedman, S., Tarr, P., Schnadower, D., McKee, R., **Tarr, G. A.** "Predicting Adverse Outcomes in Children with Shiga toxin-producing E. coli (STEC) Using a Novel Prognostic Index," Excellence in Medical Student Research UNKNOWN, Edmonton, Alberta, Canada. (November 2018).
23. **Tarr, G. A.,** Zhuo, R., Pang, X.-L., Lee, B., Chui, L., Ali, Freedman, S. "Natural History of Astrovirus- and Sapovirus-associated Gastroenteritis in Children Visiting the Emergency Department," International Conference on Emerging Infectious Diseases Centers for Disease Control and Prevention, Atlanta, Georgia. (August 2018). *Peer-reviewed/refereed.*
24. **Tarr, G. A.,** L, C., Lee, B., Pang, X.-L., Nettel-Aguirre, A., Ali, Vanderkooi, O., Berenger, B., Dickinson, J., Tarr, P., Drews, S., MacDonald, J., Kim, K., Freedman, S. "Predicting Bacteria Detection in Pediatric Acute Gastroenteritis to Encourage Appropriate Treatment," International Conference on Emerging Infectious Diseases Centers for Disease Control and Prevention, Atlanta, Georgia. (August 2018). *Peer-reviewed/refereed.*
25. **Lin, C.,** Freedman, S., Tarr, P., Schnadower, D., McKee, R., **Tarr, G. A.** "Predicting Adverse Outcomes in Children with Shiga toxin-producing E. coli (STEC) Using a Novel Prognostic Index," Summer Student Research Day 2018, Best Healthy Outcomes Poster Presentation Alberta Children's Hospital Research Institute, Calgary. Alberta, Canada. (August 2018).
26. **Tarr, G. A.,** Oltean, H., Rabinowitz, P., Phipps, A., Tarr, P. "Definitions of hemolytic uremic syndrome following Escherichia coli O157:H7 infection vary in validity," VTEC 2018 VTEC, Florence, Italy. (May 2018). *Peer-reviewed/refereed.*
27. **Tarr, G. A.,** Oltean, H., Phipps, A., Tarr, P. "Concordance between case definitions and public health reporting of hemolytic uremic syndrome in Escherichia coli O157:H7 infections," Annual Meeting Society for Epidemiologic Research, Seattle, WA. (June 2017). *Peer-reviewed/refereed.*
28. **Tarr, G. A.,** Mayer, Phipps, A., Wakefield, J., Besser, T., Rabinowitz, "Methods for Optimizing the Power of Phylogenetic Data to Better Understand the Epidemiology of Escherichia coli O157," VTEC 2015 VTEC, Boston, Massachusetts. (September 2015). *Peer-reviewed/refereed.*
29. Sharma, M., Ying, R., **Tarr, G. A.,** Barnabas, R. "Community-based approaches address gaps in HIV testing and linkage in sub-Saharan Africa: A systematic review and meta-analysis," HIV Pathogenesis, Treatment and Prevention International AIDS Society (IAS), Vancouver, BC, Canada. (July 2015). *Peer-reviewed/refereed.*

### **Presentation/Talk**

- \*1. **Rau, A.,** Baldomero, A. K., Bell, J. E., Rennie, J. J., Wendt, C. H., **Tarr, G. A.M.,** Alexander, B. H., Berman, J. D., "Compound Drought and Heatwave Effects on Mortality Risk in United States Veterans with Chronic Obstructive Pulmonary Disease," AGU23 American Geophysical Union, San Francisco, California. (December 2023). *Peer-reviewed/refereed.*
- \*2. **Tarr, G. A.M.,** Ward, C., Rounds, J., Smith, K., "Cattle density and rurality independently increase risk for Shiga toxin-producing Escherichia coli infections," APHA APHA, Atlanta, Georgia, United States. (November 2023). *Peer-reviewed/refereed.*



- \*3. **Tarr, G. A.M.**, "Exploring How STEC Exposures Influence Serogroup and Genotype," VTEC 2023, Banff, Alberta, Canada. (May 2023). *Peer-reviewed/refereed*.
4. **Tarr, G. A., Morris, K. J., Harding, A. B., S.,** Smith, M. K., Church, T. R., Berman, J. D., **A.,** Ashida, S., Ramirez, M. R., "Self-Efficacy's Influence on Outings and Contacts During the COVID-19 Pandemic," SER Annual Meeting Society for Epidemiologic Research. (June 24, 2021). *Peer-reviewed/refereed*.
5. **Tarr, G. A.,** Chui, L., Lee, B., Pang, X.-L., Nettel-Aguirre, A., Ali, S., Vanderkooi, O., Berenger, B., Dickinson, J., Tarr, P., Kim, K., Freedman, S. "Guideline Performance for the Detection of Bacteria in Children Presenting in the Emergency Department with Acute Gastroenteritis," PAS Meeting Pediatric Academic Societies (PAS), Baltimore, Maryland. (April 2019). *Peer-reviewed/refereed*.
6. **Tarr, G. A.,** Freedman, S. "Linking Provincial and Prospective Cohort Study Data to Estimate the Incidence and Healthcare Burden of Viral Gastroenteritis," 2018 IPDLN Conference International Population Data Linkage Network, Banff, Alberta, Canada. (September 2018). *Peer-reviewed/refereed*.
7. **Tarr, G. A.,** Shringi, S., Wakefield, J., Phipps, A., Besser, T., Tarr, P., Rabinowitz, P., Mayer, J. "The role of phylogenetic lineage in Escherichia coli O157:H7 risk: location, location, location," International Meeting on Emerging Diseases and Surveillance International Society for Infectious Diseases, Vienna, Austria. (November 2016). *Peer-reviewed/refereed*.

## Media Contributions

- "Faculty Friday: Dr. Kim Stanford," University of Lethbridge Stories, Lethbridge, Alberta, Canada July 2, 2021  
<https://stories.ulethbridge.ca/ff-stanford/>
- "Molecular GI Panel in Kids: Rapid Results but Underwhelming Outcomes," Physician's Weekly <https://www.physiciansweekly.com/molecular-gi-panel-in-kids-rapid-results-but-underwhelming-outcomes/> April 14, 2021
- "Searching for balance: With reopenings, life edges closer to normal," Southwest News Media, Savage, MN June 12, 2020  
[https://www.swnewsmedia.com/prior\\_lake\\_american/news/searching-for-balance-with-reopenings-life-edges-closer-to-normal/article\\_363c5ae3-5c8b-5434-823c-af7feca8aa64.html](https://www.swnewsmedia.com/prior_lake_american/news/searching-for-balance-with-reopenings-life-edges-closer-to-normal/article_363c5ae3-5c8b-5434-823c-af7feca8aa64.html)
- "Minnesotans slip in social distancing measures as confirmed virus cases rise," Pioneer Press, St. Paul, MN <https://www.twincities.com/2020/05/10/sunday-coronavirus-update-minnesota-deaths-up/> May 10, 2020
- "University research targets social distancing compliance, mental health," MN Daily News April 14, 2020  
<https://mndaily.com/205368/news/acovidstress/>
- "Do stress and other factors affect how well people comply with social distancing?," School of Public Health News, University of Minnesota April 2, 2020  
<https://www.sph.umn.edu/news/do-stress-and-other-factors-affect-how-well-people-comply-with-social-distancing/>

"Natural history is comparable for astrovirus, sapovirus, norovirus,"  
IDPractitioner, MDedge  
<https://www.mdedge.com/pediatricnews/article/174915/pediatrics/natural-history-comparable-astrovirus-sapovirus-norovirus/page/0/1>  
September 16, 2018

"E. coli Variations in Washington State," Emerging Infectious Diseases  
Podcast, Centers for Disease Control and Prevention  
<https://tools.cdc.gov/medialibrary/index.aspx#/media/id/380518>  
May 17, 2018

"What bugs are making Alberta kids sick?," UToday, University of  
Calgary, Calgary, Alberta, Canada  
<https://ucalgary.ca/news/what-bugs-are-making-alberta-kids-sick>  
March 26, 2018

## TEACHING

### *Scheduled Teaching*

- \* MS Env Health Plan B Project PUBH 7195  
Fall 2023
- Integrative Learning Exp: EH: PUBH 7194  
Spring 2024, Spring 2023, Spring 2022
- Applied Prac Exp Enviro Health: PUBH 7196  
Spring 2024, Fall 2023, Fall 2022, Summer 2022, Spring 2022
- Ecology of Infectious Disease: VMED 5180  
Fall 2023, Fall 2022, Fall 2021, Fall 2020
- Topics: Environmental Health: PUBH 6100: Applied Analysis of Population-level Environmental  
Spring 2023
- Directed Study: Envrn Health: PUBH 7193  
Summer 2021
- Topics in Infectious Disease: PUBH 7230: Managing Pandemics: PubHlth Strtgs for COVID Cntrl  
Summer 2021: 27 students
- Topics: Env Hlth: "Studies": PUBH 3100: Public Health Responses to COVID-19  
Spring 2021: 11 students, Fall 2020: 12 students

### **Instructional Activity**

#### *University of Minnesota*

PubH 8120: Guest Lecturer, Environmental Health Sciences  
Doctoral Seminar  
Lecture topic: Research program introduction, job search strategies  
2019

#### *University of Calgary, Cumming School of Medicine*

MDCH 643: Co-instructor, Research in Healthcare Epidemiology and Infection  
Control, University of Calgary, Cumming School of Medicine, 4 participants  
2019

***University of Washington, School of Public Health***

|  |      |
|--|------|
| Academic Support Teaching Assistant, Introductory epidemiology and biostatistics courses, University of Washington, School of Public Health                    | 2016 |
| EPI 513: Teaching Assistant, Epidemiologic Methods II: Theory and Methods in Epidemiology, University of Washington, School of Public Health, 140 participants | 2016 |
| Co-instructor, Epi/Biostats Bootcamp, University of Washington, School of Public Health, 100 participants  | 2016 |
| EPI 512: Teaching Assistant, Epidemiologic Methods I: Theory and Methods in Epidemiology, University of Washington, School of Public Health, 140 participants  | 2015 |
| EPI 554: Teaching Assistant, Introduction to Epidemic Modeling for Infectious Diseases, University of Washington, School of Public Health, 30 participants     | 2014 |

***Johns Hopkins Bloomberg School of Public Health, Department of Epidemiology***

|  |      |
|--|------|
| 340.753: Teaching Assistant, Epidemiology 3: Cohort Studies; epidemiologic principles of cohort studies, Johns Hopkins Bloomberg School of Public Health, Department of Epidemiology | 2006 |
|--|------|

**CURRICULUM DEVELOPMENT ACTIVITIES**

***University of Minnesota***

|   |             |
|---|-------------|
| Developed a graduate seminar course, Applied Analysis of Population-level Environmental Health Data, for building skills and preparing students to analyze large environmental health datasets. I developed the course specifically applying strategies I learned through the Inclusive Teaching and Assessment Deep Dive workshops I attended.   | 2022 - 2023 |
| Co-developed undergraduate full-semester and graduate Public Health Institute courses on the public health response to the COVID-19 pandemic. I led development of the general flow of the undergraduate course and the primary assessments, as well as approximately half of the week-to-week content. The graduate course grew out of the undergraduate course; my co-instructor and I were each responsible for half of the content. | 2020 - 2021 |

***University of Washington, School of Public Health***

|  |      |
|--|------|
| Co-developer of a 3-day workshop for incoming public health graduate students. Developed curriculum portions on epidemiology and success strategies for graduate school. | 2016 |
|--|------|

**PROFESSIONAL DEVELOPMENT ACTIVITIES**

|  |                        |
|--|------------------------|
| * Mentorship, "Mothers Leading Science," University of Minnesota, Minneapolis, MN                        | January 2024 - present |
| * Training, "Taming the BEAST: Squamish BEAST Tamers,"<br>Phylogenetic and phylodynamic methods training | August 2023            |

|  |                              |
|--|------------------------------|
| University Teaching/Learning Program, "Assessment Deep Dive," University of Minnesota, Minneapolis   | January 2023                 |
| University Teaching/Learning Program, "Foundations of Inclusive Teaching," University of Minnesota, Minneapolis, Minnesota   | October 2022 - December 2022 |
| Training, "Mentoring Excellence Training Academy," University of Minnesota, Minneapolis  | October 2022 - November 2022 |
| Workshop, "Next Generation Sequencing Bioinformatics," Wellcome Sanger Institute, Hinxton, Cambridge, United Kingdom   | October 2022                 |
| Formative Teaching Evaluation, "Formative Teaching Evaluation," University of Minnesota, Minneapolis   | April 2022                   |
| Faculty development program, "New Faculty Program," University of Minnesota, Minneapolis   | September 2019 - June 2021   |
| University Teaching/Learning Program, "Early Career Teaching and Learning Program," University of Minnesota, Minneapolis   | September 2020 - May 2021    |
| Workshop, "Teaching With Writing Online," University of Minnesota, Office of Undergraduate Education, Minneapolis  | January 2021                 |
| Mentorship, "Faculty Success Program," National Center for Faculty Development and Diversity   | August 2020 - December 2020  |
| Workshop, "Summer Institute in Statistics and Modeling in Infectious Diseases," University of Washington<br>Workshops: Stochastic Modeling, Genomic Transmission, Phylogenetic Inference | July 2020                    |
| Seminar, "Online Course Design Seminar," University of Minnesota, Minneapolis  | June 2020 - July 2020        |
| University Teaching/Learning Program, "Certificate in University Teaching and Learning," University of Calgary   | 2018 - 2019                  |
| Tutorial, "Causal Diagrams: Draw Your Assumptions Before Your Conclusions," HarvardX   | 2018                         |
| Workshop, "Summer Institute in Statistics and Clinical Research," University of Washington   | 2018                         |
| Workshop, "Causal Inference Methods for PCOR using Observational Data (CIMPOD),"   | 2017                         |
| Workshop, "Causal Inference Methods for PCOR using Observational Data (CIMPOD),"   | 2016                         |
| Workshop, "Summer Institute in Statistics and Modeling in Infectious Diseases," University of Washington   | 2015                         |
| Training, "Certificate in Vaccine Science and Policy," Johns Hopkins Bloomberg School of Public Health   | 2006                         |

## ADVISING AND MENTORING

### Undergraduate Students Activities

#### *Other Advising Activities*

#### University of Minnesota

|   |             |
|---|-------------|
| Internship Advisor  | 2022        |
| Ameya Komaragiri  |             |
| Dean's First-Year Research & Creative Scholars (DFRACS) internship mentor |             |
| Internship Advisor  | 2022        |
| Tony Kamel  |             |
| Dean's First-Year Research & Creative Scholars (DFRACS) internship mentor |             |
| Supervised Research and Training  | 2020 - 2021 |
| Swetha Shankar  |             |
| Research volunteer supervisor   |             |

#### MnDRIVE/Louis Stokes North Star STEM Alliance

|                      |                         |
|----------------------|-------------------------|
| * Internship Advisor | June 2023 – August 2023 |
| Nafisa Ali           |                         |

#### University of Calgary

|                                  |      |
|----------------------------------|------|
| Supervised Research and Training | 2019 |
| Emily Downey                     |      |
| Summer studentship supervisor    |      |

### Graduate Student Activities

#### *Advisees*

|  |                |
|--|----------------|
| * Lauren Peterson, Environmental Health MPH  | 2023 – Present |
| * William Finical, Environmental Health PhD  | 2023 – Present |
| Thang Nguyen, Environmental Health MPH   | 2022 – Present |
| Keeley Morris, Epidemiology PhD  | 2022 - Present |
| 1st place abstract, PhD category, Research Day 2022                                  |                |
| Abstract selected for Delta Omega poster session, APHA 2022                          |                |
| Md. Sultan Uz Zaman, Environmental Health Ph D                                       | 2021 – Present |
| Scholarship, Statistics and Modeling in Infectious Diseases 2022                     |                |
| Scholarship, Dynamical Approaches to Infectious Disease Data 2022                    |                |
| Jacqueline Johnson, Environmental Health MPH   | 2021 - 2023    |
| * 2nd place, Master's category, 2023 SPH Research Day                                |                |
| Cassy Wilson-Homel, Environmental Health MPH   | 2021 - 2023    |
| Chinwenwa Iheme, Environmental Health MPH  | 2020 – 2022    |
| Alexandra Garvin, Environmental Health MS  | 2020 – 2022    |
| Harold R. Shipman Award for Excellence in Environmental and Occupational Health 2022 |                |

Jenna Leonhard, Environmental Health MPH 2020 – 2021  
Jenna left the program due to unanticipated personal circumstances.

***Other Advising Activities***

**University of Minnesota**

Supervised Research and Training. 2020 - 2023  
Keeley Morris, RA supervisor

Supervised Research and Training. 2021 - 2022  
Gabrielle Johnson, ILE research mentor

Supervised Research and Training. 2019 - 2022  
Madhura Vachon, Pre-dissertation research mentor

Supervised Research and Training. 2020 - 2021  
Ali Strickland, RA supervisor

Supervised Research and Training. 2020 – 2021  
Damon Leach, RA supervisor

Internship Advisor. 2020 - 2021  
Drew Persson, APEX preceptor

***Committee Advising***

***Doctoral Final Committee: Committee Chair***

\* Austin Rau, Environmental Health PhD 2023  
Thesis: Extreme weather and mortality among a nationwide cohort of Veterans with COPD

\* Alyson Harding, Environmental Health PhD 2023  
Thesis: Public Health Impacts of Public Safety Power Shutoffs

Madhura Vachon, Environmental Health PhD 2022 - 2023  
Thesis: Preventing the Zoonotic Transmission of Shiga toxin-producing Escherichia coli and Subsequent Development of Post-diarrheal Hemolytic Uremic Syndrome at Animal Contact Venues using a One Health Approach

***Doctoral Final Committee: Committee Reviewer***

\* Ali Strickland, Environmental Health PhD 2023  
Thesis: Power in Numbers: Quantitative Microbial Risk Assessments of Salmonella in Federally Sampled Ground Meat Products and the Resulting Impact of Risk Management Strategies on Public Health

***Doctoral Preliminary Committee: Committee Chair***

Madhura Vachon, Environmental Health PhD 2021 - 2023  
Thesis: Preventing the Zoonotic Transmission of Shiga toxin-producing Escherichia coli and Subsequent Development of Post-diarrheal Hemolytic Uremic Syndrome at Animal Contact Venues using a One Health Approach

Keeley Morris, Epidemiology PhD 2022 - Present  
1st place, PhD category, 2022 SPH Research Day

***Doctoral Preliminary Committee: Committee Member***

- \* Austin Rau, Environmental Health PhD 2022 - 2023  
Thesis: Extreme weather and mortality among a nationwide cohort of Veterans with COPD
- Alyson Harding, Environmental Health PhD 2022 - 2023  
Thesis: Public Health Impacts of Public Safety Power Shutoffs
- Ali Strickland, Environmental Health PhD 2020 - 2023  
Thesis: Power in Numbers: Quantitative Microbial Risk Assessments of Salmonella in Federally Sampled Ground Meat Products and the Resulting Impact of Risk Management Strategies on Public Health
- Patrick Balius, Environmental Health PhD 2022 - Present

***Master's Thesis/Research Committee: Committee Chair***

- Alexandra Garvin, Environmental Health MS 2022

***Master's Thesis/Research Committee: Committee Member***

- Damon Leach, Biostatistics MS 2021

**Professional Student Activities**

***Other Advising Activities***

**University of Calgary**

- Supervised Research and Training 2018  
Chu Yang Lin  
Summer studentship supervisor  
Top Speaker Prize, 3 Minute Thesis 2019, University of Alberta  
Best Poster Presentation, Summer Student Research Research Day 2018,  
Alberta Children's Hospital

**Other Students Activities**

***High school***

- Supervised Research and Training 2020 - 2021  
Vaishu Chintam  
Honors Mentor Connection mentor

**MENTORING/CAREER ADVISING**

- Noelle Noyes, College of Veterinary Medicine 2021 - Present  
Reciprocal peer mentoring
- FSP Alumni Peer Mentoring Group, NCFDD Faculty Success Alumni Program 2021 - 2022
- SER Peer Mentoring Group, Society for Epidemiologic Research 2021 - 2022

**SERVICE**

**Service to the Discipline/Profession/Interdisciplinary Area(s)**

***Abstract Reviewer***

Annual Meeting, Society for Epidemiologic Research 2018 - 2022

***Grant Reviewer***

Population-based Research in Infectious Disease Study Section, NIH 2023

Institute on the Environment Mini Grant, University of Minnesota 2022 - 2023

UK Research and Innovation (UKRI) Medical Research Council (MRC) 2021 - 2023

Etiology, Diagnostic, Intervention and Treatment of Infectious Diseases Study Section, NIH 2022

Clinical Research Fund, University of Calgary Cumming School of Medicine 2019

Project Support Grant, Glasgow Children's Hospital Charity Research Fund 2018

***Poster Judge***

\* Annual Meeting, Society for Epidemiologic Research, Portland, Oregon 2023

Annual Meeting, Society for Epidemiologic Research, Chicago, Illinois 2022

***Questions contributed for certification exam revision***

\* Canadian College of Microbiologists 2023

***Journal Special Issue Guest Editor***

The Science of Shiga Toxin-Producing (Verotoxin-Producing) Escherichia coli (STEC): An Ongoing One Health Journey toward Improved Health and Food Safety, Microorganisms 2022 - 2023

***External Thesis Reviewer***

\* University Institute of Public Health, Faculty of Allied Health Sciences, University of Lahore, Lahore, Pakistan 2023

***Reviewer***

Journal of Infectious Diseases 2022 - 2023

European Journal of Clinical Microbiology & Infectious Diseases 2020 - 2023

Journal of Medical Virology 2022

The Lancet Infectious Diseases 2022

JAMA Pediatrics 2020 - 2022

PLoS Neglected Tropical Diseases 2020 - 2022

Clinical Microbiology and Infection 2018 - 2022

Journal of Pediatrics 2021

Microorganisms 2021

Pediatric Research 2021

Proceedings of the National Academy of Sciences 2021

Journal of Clinical Microbiology 2020



|   |      |
|---|------|
| BMJ Open  | 2019 |
| Epidemiology & Infection                            | 2019 |
| Journal of the Pediatric Infectious Disease Society | 2019 |
| Clinical Infectious Diseases                        | 2018 |
| European Journal of Pediatrics                      | 2018 |
| PLoS ONE  | 2018 |
| Zoonoses and Public Health                          | 2017 |

**Service to the University/College/Department**

**University of Minnesota**

***College***

|   |                |
|---|----------------|
| Coordinator, ID Pod   | 2022 – Present |
| Coordinator, Junior Faculty Luncheons   | 2022 - 2023    |
| Reviewer, EpiCH Part B Exam   | 2022           |
| Peer Evaluator of Teaching, Summative Teaching Evaluation                                   | 2022           |
| Member, Ad Hoc Committee for Revision of SPH Appointment, Promotion and Tenure (APT) Policy | 2020 - 2021    |
| Member, Research Sunrise Plan Work Group  | 2020           |

***Department***

|  |                |
|--|----------------|
| * Member, EnHS Workload Workgroup  | 2024 - Present |
| * Reviewer, Minnesota Environmental Health Association Mary Lauren Olson Scholarship | 2023           |
| Member, Curriculum Committee   | 2020 - Present |
| Organizer, Dissertation Success Program  | 2021           |
| Reviewer, Minnesota Environmental Health Association Mary Lauren Olson Scholarship   | 2020           |

**University of Calgary**

|  |      |
|--|------|
| Reviewer, Healthy Outcomes Theme Collaborative Research Grants, Alberta Children’s Hospital Research Institute | 2019 |
| Pre-Submission Reviewer, CIHR Doctoral Scholarship, Alberta Children’s Hospital Research Institute             | 2018 |
| Member, Banting Postdoctoral Fellowship Adjudication Committee   | 2019 |

**University of Washington**

|  |             |
|--|-------------|
| PhD Student Representative, Curriculum Committee | 2016 - 2017 |
|--|-------------|

**Public and External Service**

|  |      |
|--|------|
| * Taught middle school children about disease transmission during their Junior Medical School class, Laura Jeffrey Academy, Saint Paul | 2024 |
|--|------|