

# W Alton Russell

Clinical and Health Informatics Research Group  
McGill School of Population and Global Health

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*Updated February 2022*

## Academic Appointments

Assistant professor, [School of Population and Global Health](#), McGill University 2022 – present  
Department of Epidemiology Biostatistics and Occupational Health  
McGill Clinical and Health Informatics Research Group

## Training

Postdoctoral fellow, [Harvard Medical School](#) 2021  
Massachusetts General Hospital Institute for Technology Assessment  
Advisor: Mohammad Jalali

Ph.D [Management Science and Engineering](#), Stanford University 2016 – 21  
Dissertation: Models to inform safe blood collection and transfusion  
Committee: Margaret Brandeau (primary advisor), Doug Owens,  
Jeremy Goldhaber-Fiebert

M.S. [Management Science and Engineering](#), Stanford University 2016 – 18  
Specialization: Health systems modeling

B.S. [Industrial and Systems Engineering](#), North Carolina State University 2010 – 14  
Certificate: Health systems engineering

B.S. [Interdisciplinary Studies](#), North Carolina State University 2010 – 14  
Concentration: Global health and sustainability

## Other Employment

Independent consultant, multiple healthcare organizations 2016 – 21

Intern, Epidemiology and Health Policy Science, [Vitalant Research Institute](#) 2017 – 17

Cost management consultant, Performance Partners, [Premier, Inc.](#) 2015 – 16

Cost management analyst, Performance Partners, [Premier, Inc.](#) 2014 – 15

Healthcare process improvement engineering intern, [Johns Hopkins University](#)  
[Applied Physics Laboratory](#) 2013 – 13

## Grants, Fellowships, and Scholarships

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| ”Exploring the value of blood donor data to public health.” <a href="#">Canadian Blood Services</a> . \$187,500 CAD. Principle investigator.   | 2022 – 25 |
| ”Modèles de projection de la progression du nombre de personnes atteintes de la COVID-19 au Québec et des impacts de cette progression sur le système de santé.” <a href="#">Institut national d’excellence en santé et en service sociaux Québec</a> . \$356,578 CAD, collaborator. |           |
| ”Assessing costs and benefits of different testing strategies for COVID-19 in Canada.” <a href="#">McGill Interdisciplinary Initiative in Infection and Immunity</a> . Emergency COVID Grant, \$86,000 CAD. collaborator.  | 2020 – 20 |
| <a href="#">Stanford Interdisciplinary Graduate Fellowships</a> , Stanford University  | 2019 – 22 |
| <a href="#">Vitalant Research Institute Dissertation Grant</a> , <i>Modeling Safety in the Blood Supply</i>  | 2018 – 19 |
| <a href="#">Stanford Engineering Fellowship</a> , Stanford University  | 2016 – 18 |
| <a href="#">Roy H Park Scholarship</a> , North Carolina State University   | 2010 – 14 |
| <a href="#">Benjamin Franklin Dual-Degree Scholarship</a> , North Carolina State University  | 2010 – 14 |

## Honors and Awards

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| Outstanding Abstract Award for Trainees, <a href="#">AABB Annual Meeting</a>   | 2021 |
| ‘Best of ISBT 2021’ Poster, <a href="#">International Society of Blood Transfusion</a>   | 2021 |
| Lee B. Lusted Student Award in Health Services, Outcomes, and Policy Research, <a href="#">Society for Medical Decision Making</a> | 2020 |
| ‘Best of ISBT 2020’ Poster, <a href="#">International Society of Blood Transfusion</a>   | 2020 |
| Outstanding Abstract Award for Trainees, <a href="#">AABB Annual Meeting</a>   | 2020 |
| Runner-up, <a href="#">Tufts-CEVR 2019 Cost-Effectiveness Analysis Paper of the Year</a>   | 2020 |
| Finalist, <a href="#">Seth Bonder Scholarship for Applied Operations Research in Health Services</a>                               | 2019 |
| Lee B. Lusted Student Award in Applied Health Economics, <a href="#">Society for Medical Decision Making</a>                       | 2018 |
| Award in Sex- and Gender-based Analysis, <a href="#">Canadian Institutes of Health Research Institute of Gender and Health</a>     | 2018 |
| Outstanding Abstract Award for Trainees, <a href="#">AABB Annual Meeting</a>   | 2018 |
| Departmental Service Award, <a href="#">Stanford Management Science and Engineering</a>  | 2018 |

## Publications

\* Authors contributed equally

- [1] **Russell WA**, Scheinker D, and B Custer. [Individualized risk trajectories for iron-related adverse outcomes in repeat blood donors](#). *Transfusion* (2022). 10.1111/trf.16740
- [2] **Russell WA**, Owusu-Ofori S, Owusu-Ofori A, Micah E, Norman B, and B Custer. [Cost-effectiveness and budget impact of whole blood pathogen reduction in Ghana](#). *Transfusion* (2021). 10.1111/trf.16704
- [3] **Russell WA**, Custer B, and M Brandeau. [Optimal portfolios of blood safety interventions: test, defer or modify?](#) *Health Care Management Science* (2021). 10.1007/s10729-021-09557-1
- [4] **Russell WA** and DB Buckeridge. [Effectiveness of quarantine and testing to prevent COVID-19 transmission from arriving travelers](#). *MedRxiv* (2021). 10.1101/2020.11.02.20224568
- [5] **Russell WA\***, Grebe E\*, and B Custer. [Factors driving availability of COVID-19 convalescent plasma: Insights from a demand, production and supply model](#). *Transfusion* (2021). 10.1111/trf.16317
- [6] **Russell WA**. [Estimating the impact of discontinuing universal screening of donated blood for Zika virus in the 50 U.S. states](#). *Annals of Internal Medicine* (2021). 10.7326/M20-6879
- [7] **Russell WA**, Scheinker D\*, and S Sutherland\*. [Baseline creatinine determination method impacts association between acute kidney injury and clinical outcomes](#). *Pediatric Nephrology* (2020). 10.1007/s00467-020-04789-9
- [8] Campbell JR, Uppal A, Oxlade O, Fregonese F, Bastos M, Lan Z, Law S, Oh CE, **Russell WA**, Sulis G, Winters N, Lane MY, Brisson M, Laszlo S, Evans TG, and D Menzies. [Active testing of groups at increased risk of acquiring SARS-CoV-2 in Canada: costs and human resource needs](#). *Canadian Medical Association Journal* (2020). 192(40):E1146-E1155
- [9] Yu JX, **Russell WA**, Asokkumar R, Kaltenbach T, and R Soetikno. [Clipping over the scope for recurrent peptic ulcer bleeding is cost-effective as compared to standard therapy: An initial assessment](#). *Gastrointestinal Endoscopy Clinics of North America* (2020). 30(1):91-97
- [10] Yu JX\*, **Russell WA\***, Ching JH, Kim N, Bendavid E, Owens DK, and T Kaltenbach. [Cost effectiveness of endoscopic resection vs transanal resection of complex benign rectal polyps](#). *Clinical Gastroenterology and Hepatology* (2019). 17(13):2740-2748
- [11] **Russell WA**, Stramer SL, Busch MP, and B Custer. [Cost-effectiveness of screening the blood supply for Zika in the 50 U.S. States and Puerto Rico](#). *Annals of Internal Medicine* (2019). 170(3):164-174.

## Under Review

- [12] Morse KE, Brown C, Fleming S, Todd, I, Powell A, **Russell WA**, Scheinker D, Sutherland S, Lu J, Watkins B, Shah N, Pageler NM, and J Palma. [Monitoring approaches for a pediatric chronic kidney disease machine learning model](#). *Applied Clinical Informatics*. Accepted.

## Presentations

### Invited Presentations

- [1] Group for Research in Decision Analysis (GERAD) Québec, Nov. 2021
- [2] McGill University, Department of Epidemiology and Biostatistics, Nov. 2021
- [3] University of Utah, Dept. of Population Health Sciences, Apr. 2021
- [4] University of North Carolina at Charlotte, Dept. of Public Health Sciences, Apr. 2021
- [5] Public Health Agency of Canada, CanCOVID Scientific Panel on Quarantine, Dec. 2020 (Panel)
- [6] Massachusetts General Hospital Institute for Technology Assessment, Sept. 2020
- [7] McGill University, Desautels Faculty of Management, Feb. 2020
- [8] Concordia University, Mechanical, Industrial & Aerospace Engineering, Feb. 2020

### Oral Conference Presentations

- [9] **Russell WA**, Owusu-Ofori S, Owusu-Ofori A, Norman B, Micah E, and B Custer. (2021). Cost-effectiveness of adding whole blood pathogen reduction to Ghana's blood safety program. [Society for Medical Decision Making 43rd Annual North American Meeting](#). Virtual. **Finalist for Lee B. Lusted Student Award.**
- [10] **Russell WA**, Scheinker D, and B Custer (2021). Prediction of iron-related adverse donation outcomes for repeat blood donors based on donation interval. [AABB 2021 Annual Meeting](#). Virtual. **Winner of AABB Outstanding Abstract Award for Trainees.**
- [11] **Russell WA**, Scheinker D, and B Custer (2021). Tailoring minimum blood donation intervals to individual risk for iron-related adverse donation outcomes. [Institute for Operations Research and Management Science \(INFORMS\) Healthcare](#). Virtual.
- [12] **Russell WA**, Owusu-Ofori S, Owusu-Ofori A, Norman B, Micah E, and B Custer. (2020). Budget impact and risk-reduction assessment of whole blood pathogen reduction in Ghana. [International Society of Blood Transfusion 35th International Congress](#). Virtual.
- [13] **Russell WA**, Grebe E, and B Custer (2020). Interactive Tool to Inform COVID-19 Convalescent Plasma Policy and Operations. [Society for Medical Decision Making 42nd Annual North American Meeting](#). Virtual. **Winner of Lee B. Lusted Student Award.**
- [14] **Russell WA**, Custer B, and M Brandeau. (2020). Defer, Test, or Modify? Identifying the Optimal Portfolio of Blood Safety Interventions. [Society for Medical Decision Making 42nd Annual North American Meeting](#). Virtual. **Finalist for Lee B. Lusted Student Award.**
- [15] **Russell WA**, Grebe E, and B Custer B. (2020). Projecting COVID-19 Convalescent Plasma Production, Supply, and Demand during an Epidemic. [AABB 2020 Annual Meeting](#). Virtual. **Winner of AABB Outstanding Abstract Award for Trainees.**
- [16] **Russell WA** (2019). Operationalizing individual risk prediction algorithms in healthcare settings. [Institute for Operations Research and Management Science \(INFORMS\) Healthcare](#). Boston, USA.

- [17] **Russell WA** (2019). A framework for identifying the optimal portfolio of blood safety interventions. [Institute for Operations Research and Management Science \(INFORMS\) Annual Meeting](#). Seattle, USA.  
**Session chair:** Modeling safety, sufficiency, and cost in the blood supply
- [18] **Russell WA**, Scheinker D, and B Custer (2019). Personalizing inter-donation intervals for repeat blood donors using machine learning. [International Society of Blood Transfusion 29th Regional Congress](#). Basel, Switzerland.
- [19] **Russell WA**, Stramer SL, Busch MP, and B Custer (2018). The cost-effectiveness of implementing minipool nucleic acid testing for Zika virus. [AABB 2018 Annual Meeting](#). Boston, USA. Presented by B Custer. **Winner of AABB Outstanding Abstract Award for Trainees.**
- [20] **Russell WA**, Stramer SL, Busch MP, and B Custer (2018). Cost-effectiveness of screening the blood supply for Zika in the Fifty United States and Puerto Rico. [International Society of Blood Transfusion 35th International Congress](#). Toronto, Canada.

### Poster Conference Presentations

- [21] **Russell WA**, Owusu-Ofori S, Owusu-Ofori A, Norman B, Micah E, and B Custer. (2021). Cost-effectiveness and budget impact of whole blood pathogen reduction in Ghana. [International Society of Blood Transfusion In Focus Congress](#). Virtual. *Scheduled*. **Selected for ‘Best of ISBT.’**
- [22] **Russell WA**, Custer, B, and M Brandeau (2020). Method for optimizing a blood safety portfolio with application to transfusion-transmitted arboviruses in the United States. To be presented at [International Society of Blood Transfusion 35th International Congress](#). Virtual. **Selected for ‘Best of ISBT.’**
- [23] **Russell WA**, Scheinker D, and B Custer (2019). Personalized Inter-Donation Intervals to Manage Risk of Iron-Related Adverse Events in Repeat Blood Donors. [Society for Medical Decision Making 41st Annual North American Meeting](#). Portland, USA. **Finalist for Lee B. Lusted Student Award.**
- [24] **Russell WA**, Sutherland S, and D Scheinker (2019). Predicting chronic kidney disease in pediatric acute kidney injury survivors. [Big Data in Precision Health](#). Stanford, USA.
- [25] **Russell WA**, Stramer SL, Busch MP, and B Custer (2018). A Cost-Effectiveness Microsimulation Model of Screening Donated Blood for Zika Virus in the United States. [Society for Medical Decision Making 40th Annual North American Meeting](#). Montreal, Canada. **Winner of Lee B. Lusted Student Award.**

## Teaching

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| <p><b>Intro to health policy modeling</b> (MS&amp;E 92), Stanford<br/>         Instructor of record and creator<br/>         Undergraduate level course<br/>         14 students enrolled</p>  | 2019 |
| <p><b>Methods and models for policy and strategy analysis</b> (MS&amp;E 190), Stanford<br/>         Co-instructor of record<br/>         Undergraduate level course<br/>         91 students enrolled</p>  | 2019 |
| <p><b>Health policy modeling</b> (MS&amp;E 292), Stanford<br/>         Course assistant (one-on-one project guidance, grading, 2 lectures)<br/>         Masters level course<br/>         18 students enrolled<br/>         Guest lecturer, 2020</p>   | 2019 |
| <p><b>Probabilistic analysis</b> (MS&amp;E 120/220), Stanford<br/>         Course assistant (Weekly office hours, grading, leading review sessions)<br/>         Integrated undergraduate/masters level course<br/>         154 students enrolled (111 undergraduate section; 43 graduate section)</p> | 2018 |
| <p>Tutor for <b>Introduction to Stochastic Modeling</b>, Stanford Academic Athletic<br/>         Resource Center</p>   | 2017 |

## Service

- Peer review, [Annals of Internal Medicine](#), [Transfusion](#), [Journal of Biomedical Informatics](#),  
[American Journal of Public Health](#)
- Abstract review, [Society for Medical Decision Making North American Meeting](#)
- Working party, [Transfusion-transmitted Infectious Diseases Working Party of the International Society of Blood Transfusion](#)
- Selection committee, [NC State Roy H Park Scholarship](#)
- Peer mentor, [Enhancing Diversity in Graduate Education \(EDGE\) Fellowship Program, Stanford University](#)
- Session chair, [Institute for Operations Research and Management Science \(INFORMS\) Annual Meeting](#)

## Media

“Should the United States keep screening all blood donations for Zika?” by Alton Russell. *Stanford Engineering Magazine* March 2021.

“Collecting COVID-19 convalescent plasma: supply and demand considerations” by Alton Russell and Eduad Grebe. *ISBT Transfusion Today* December 2020.

“New technologies hold promise for transfusion medicine” by Leah Lawrence. *AABB News* March 2020.