Curriculum Vitae – W. Alton Russell, PhD Date of Last Revision: March 29, 2023

A. CONTACT INFORMATION

McGill Clinical and Health Informatics Group Suite 1200 2001 McGill College Avenue Montreal, Quebec, H3A 1G1 514-396-1476 <u>alton.russell@mcgill.ca</u> http://mchi.mcgill.ca/decision-modeling-lab/

B. EDUCATION

Undergraduate	
North Carolina State University, BS Industrial and Systems Engineering	2014
North Carolina State University, BS Interdisciplinary Studies	2014
Graduate	
Stanford University, MS Management Science and Engineering	2018
Stanford University, PhD Management Science and Engineering	2021
Dissertation: Models to inform safe blood collection and transfusion	
Postgraduate training	
Harvard University/Massachusetts General Hospital, Postdoctoral Fellow	2021

C. APPOINTMENTS

2022	Assistant Professor Epidemiology, Biostatistics, and Occupational Health, School of Population and Global Health, McGill University
2021/02-2021/12	Postdoctoral fellow MGH Institute for Technology Assessment, Harvard Medical School, Harvard Medical School
2017/06-2020/09	Researcher, Independent Contractor (intermittently for specific projects) Epidemiology and Health Policy Science, San Francisco campus, Vitalant Research Institute
2015/09-2016/09	Cost Management Consultant (Health Systems) Premier Performance Partners (Consulting), Premier, Inc

2014/07-2025/09	Cost Management Analyst (Health Systems) Premier Performance Partners (Consulting), Premier, Inc
2013/06-2013/08	Healthcare Process Improvement Engineering Intern Johns Hopkins University Applied Physics Lab (JHU-APL)

Affiliations

2022/08	Associated investigator, Centre for Outcomes Research and Evaluation (CORE), The Research Institute of the McGill University Health Centre
2022/07	Researcher, Quantitative Life Sciences, McGill University
2022/01	Scientific advisor, COVID-19 Immunity Task Force, COVID-19 Immunity Task Force

D. SPECIAL HONORS, AWARDS, RECOGNITION

2021	Équipe finaliste, Prix d'excellence de l'administration de l'administration publique du Québec (Team finalist, Quebec Public Administration Award of Excellence) Institut d'administration publique du Québec
2021	Outstanding Abstract Award for Trainees at AABB Annual Meeting Association for the Advancement of Blood and Biotherapies
2020-2021	'Best of ISBT' poster International Society for Blood Transfusion
2020	Lee B. Lusted Student Award in Health Services, Outcomes, and Policy Research Society for Medical Decision Making
2020	Outstanding Abstract Award for Trainees at AABB Annual Meeting Association for the Advancement of Blood and Biotherapies
2020	Runner-up, 2019 Cost Effective Analysis of the Year (Canadian dollar) Tufts University Honor
2019	Finalist, Seth Bonder Scholarship for Applied Operations Research in Health Services Institute for Operations Research and Management Science (INFORMS)

2018	Outstanding Abstract Award for Trainees at AABB Annual Meeting Association for the Advancement of Blood and Biotherapies (AABB)
2018	Award in Sex- and Gender-based Analysis Canadian Institutes of Health Research
2018	Lee B. Lusted Student Prize in Applied Health Economics Society for Medical Decision Making
2018	Departmental Service Award, Management Science and Engineering Stanford University

E. TEACHING Courses Taught

Date	Course Title	Role	No. of Students
2023/01/05 – 2023/06/23	Advanced topics in decision-analytic modeling for health <i>McGill University</i>	Instructor & creator	13
2022/08/23 - 2022/12/16	Economic evaluation of health programs McGill University	Instructor	31
2020/07/01 - 2020/09/05	Introduction to health policy modeling Management Science and Engineering, Stanford University	Instructor & creator	14
2020/04/15 - 2020/07/10	Models and methods for policy and strategy analysis Management Science and Engineering, Stanford University	Co-instructor	91
2019/01/10 - 2019/04/10	Health Policy Modeling Management Science and Engineering, Stanford University	Course Assistant	18
2018/09/25 - 2018/12/15	Probabilistic Analysis Management Science and Engineering, Stanford University	Course Assistant	154

<u>Graduate Students (Supervised):</u> <u>Primary Supervisor</u>

Years	Student	Type	Program	Institution
2022 -2023	Wanjin Li	MSc	Public Health	McGill University
2023-	Wanjin Li	PhD	Epidemiology	McGill University
2022 -	Matthew Knight	MSc	Epidemiology	McGill University
2022 -	Huzbah Jagirdar	MSc	Epidemiology	McGill University
2022 -	Chen-Yang Su	PhD	Quantitative Life	McGill University
			Science	
2023 -	Melina Thibault	MSc	Data Science	Bordeaux University (France)
2023 -	Melina Thibault	MSc	Public Health	McGill University

Academic Postdoctoral Scholar Supervision

Years	Student	Type	Program	Institution
2022 -	Yuan Yu	PDF	Public Health	McGill University

Student Committee Membership

Date	Role	Student	Committee	Degree
2022/11	Protocol defense examiner	Salome Kuchukhidze	Protocol defense	Epidemiology PhD
2022/10	Member	Kalash Dave	MSc student committee	MSc Digital Innovation
2022/06	Internal examiner	Charlotte Anita Svadzian	Dissertation defense	Epidemiology PhD
2022/04	Internal examiner	Charlotte Lanièce Delaunay	Dissertation defense	Epidemiology PhD

F. OTHER CONTRIBUTIONS <u>Mentoring Activities</u>

2022 - current	Faculty mentor, Artificial Intelligence for Public Health (AI4PH) Health Research Training Platform
2018/09 - 2019/09	Peer mentor, Stanford University Enhancing Diversity in Graduate

Education (EDGE)
Fellowship Program
Number of Mentorees: 2

Journal Review Activities

Date of first review

1 CVICW	
2022/02	Peer review, Pharmacoeconomics Number of Works Reviewed / Refereed: 1
2021/11	Peer review, PLoS ONE Number of Works Reviewed / Refereed: 1
2021/10	Peer review, Journal of Biomedical Informatics Number of Works Reviewed / Refereed: 1
2021/06	Peer review, JAMA Network Open Number of Works Reviewed / Refereed: 1
2021/02	Peer review, American Journal of Public Health Number of Works Reviewed / Refereed: 1
2020/04	Peer review, Vox Sanguinis Number of Works Reviewed / Refereed: 4
2020/03	Peer review, Health Care Management Science Number of Works Reviewed / Refereed: 3
2020/03	Peer Reviewer, Annals of Internal Medicine Number of Works Reviewed / Refereed: 6
2018/05	Peer Reviewer, Transfusion Number of Works Reviewed / Refereed: 2

Review Activities

2019/05	Abstract reviewer, Society for Medical Decision Making North America
	Meeting

2022/04 Reviewer in training, CIHR Spring 2022, Health Sciences

Evaluation and Interventions Research

Event Participation

2023/07 Panel session, Institute for Operations Research and Management Science

(INFORMS)

Panelest session titled "To Future Medical Failure: Racial and Gender Bias

in Research"

2019/10 Session Chair, Institute for Operations Research and Management Science

(INFORMS)

Chaired session titled "Modeling safety, sufficiency, and cost in the blood

supply"

Extra-University/Institution Committees

Years 2019/09–	Role Member	Committee Transfusion Transmitted Infectious Diseases Working Party	Institution International Society for Blood Transfusion
2021/12–2022/09	Member	State of the Science in Transfusion Medicine Working Group on Novel Methods	US National Heart Lung and Blood Institute (NIH)
2018/08-2022/02	Member	Park Scholarships Selection Committee	North Carolina State University

G. RESEARCH

Current Research Grants

	Term/Role	Title/Source	Amount (CAD)
1.	2023/04 – 2028/03 PI: A. Russell	Data-driven methods for simulating population heterogeneity in decision-analytic models <i>NSERC</i>	\$197,500
2.	2023/01 – 2026/12 PI: A. Russell	Linking blood donor and general population data for health surveillance and policy modeling (operating grant) FRQS	\$80,000
3.	2023/01 – 2026/12 PI: A. Russell	Linking blood donor and general population data for health surveillance and policy modeling (salary award) FRQS	\$182,582
4.	2022/11 – 2026/10 CO-I: A. Russell PI: J. Seuntjens	Towards a low-cost, optimized proton therapy accelerator, Grant <i>CIHR</i>	\$1,369,352

5.	2022/01 – 2025/12 PI: A. Russell	Exploring the value of blood donor data to public health, Contract Clinical Research <i>Canadian Blood Services</i>	\$187,500
6.	2022/07 - 2024/06 PI: A. Russell	Tailoring blood donation intervals to individual risk in South Africa, the Netherlands, and the United States, The National Blood Foundation	\$97,400
		Total	\$2,404,334
<u>Past</u>	Research Grants		
1.	Term/Role 2019/09 – 2022/06 PI: A. Russell	Title/Source Stanford Interdisciplinary Graduate Fellowship, Fellowship (\$150,000US) Stanford University	Amount (CAD) \$201,854
2.	2020/03 – 2021/09 CO-I: A. Russell	Projecting COVID-19 infections and health system impact in Quebec <i>INESSS</i>	\$356,578
3.	2018/06 – 2020/12 PI: A. Russell	Health-economic assessment of whole blood pathogen inactivation for Ghana (\$33,747US) Terumo Corporation	\$45,383
4.	2020/04 – 2020/09 Collaborator	Assessing costs and benefits of different testing strategies for COVID-19 in Canada <i>McGill University</i>	\$86,000
5.	2018/09 – 2019/09 PI: A. Russell	Vitalant Research Institute Dissertation Grant: Modeling Safety in the Blood Supply (\$33,750US) Vitalant Research Institute	\$45,387
6.	2018/09 – 2019/09 PI: A. Russell	Stanford Engineering Fellowship (\$125,670US) Stanford University	\$169,000
		Total	\$904,202

Publications

Peer-Reviewed Journals (underlined authors were students)

- 1. Claypool A.L., DiGennaro C, **Russell WA**, Yildirim MF, Zhang AF, Reid Z, Stringfellow E, Bearnot B, Schackman BR, Humphreys K, Jalali MS, (2023). Cost-Effectiveness of Increasing Buprenorphine Treatment Initiation, Duration, and Capacity Among Individuals Who Use Opioids, JAMA Health Forum, accepted.
- 2. Dong H, Stringfellow EJ, **Russell WA**, Jalali SM. (2022). Racial and Ethnic disparities in buprenorphine treatment duration in the United States. JAMA Psychiatry. 2023 Jan 1;80(1):93-95. doi: 10.1001/jamapsychiatry.2022.3673.
- 3. Dong H, Stringfellow E, **Russell WA**, Bearnot B, Jalali, M. (2022). Impact of alternative ways to operationalize buprenorphine treatment duration on understanding continuity of care for opioid use disorder. International Journal of Mental Health and Addiction.
- 4. O'Brien SF, Drews SJ, Lewin A, **Russell WA**, Davison K, Goldman M, (2022). How do we decide how representative our blood donors are for public health surveillance? Transfusion. 2022 Dec;62(12):2431-2437. doi: 10.1111/trf.17140. Epub 2022 Oct 4.
- 5. Lewin A, Osiowy C, Erikstrup C, Custer B, Renaud C, Tiberghien P, **Russell WA**, Lieshout-Krikke R, O'Brien SF. (2022). Research partnerships between blood services and public health authorities: An international, cross-sectional survey. Vox Sanguinis. 2022 Dec;117(12):1368-1374. doi: 10.1111/vox.13374. Epub 2022 Nov 10.
- 6. Morse KE, Brown C, Fleming S, Todd I, Powell A, **Russell WA**, Scheinker D, Sutherland SM, Lu J, Watkins B, Shah N, Pageler NM, Palma JP. (2022). Monitoring approaches for a pediatric chronic kidney disease machine learning model. Applied Clinical Informatics. 2022 Mar;13(2):431-438. doi: 10.1055/s-0042-1746168. Epub 2022 May 4.
- 7. **Russell WA**; Scheinker D; Custer B. (2022). Individualized risk trajectories for iron-related adverse outcomes in repeat blood donors. Transfusion. 2022 Jan;62(1):116-124. doi: 10.1111/trf.16740. Epub 2021 Nov 16
- 8. **Russell WA**; Owusu-Ofori S; Owusu-Ofori A; Micah E; Norman B; Custer B. (2021). Cost-effectiveness and budget impact of whole blood pathogen reduction in Ghana. Transfusion. 2021 Dec;61(12):3402-3412. doi: 10.1111/trf.16704. Epub 2021 Oct 14
- 9. **Russell WA**; Custer B; Brandeau M. (2021). Optimal portfolios of blood safety interventions: test, defer or modify?. Health Care Manag Sci. 2021 Sep;24(3):551-568. doi: 10.1007/s10729-021-09557-1. Epub 2021 Mar 5.
- 10. **Russell WA**. (2021). Estimating the Effect of discontinuing universal screening of donated blood for Zika virus in the 50 U.S. states. Annals of Internal Medicine. 174(5): 729-730. 2021 May;174(5):728-730. doi: 10.7326/M20-6879. Epub 2021 Feb 16

- 11. **Russell WA,** Grebe E, Custer B. (2021). Factors driving availability of COVID-19 convalescent plasma: Insights from a demand, production and supply model. Transfusion. 61(5): 1370-1376.
- 12. **Russell WA**; Scheinker, D; Sutherland, S. (2020). Baseline creatinine determination method impacts association between acute kidney injury and clinical outcomes. Pediatr Nephrol 2021 May;36(5):1289-1297. doi: 10.1007/s00467-020-04789-9. Epub 2020 Oct 23
- Campbell JR, Uppal A, Oxlade O, Fegonese F, Bastos M, Lan Z, Law S, Oh CE, **Russell WA**, Sulis G, Winters N, Lane MY, Brisson M, Laszlo S, Evans TG, Menzies D. (2020). Active testing of groups at increased risk of acquiring SARS-CoV-2 in Canada: costs and human resource needs. CMAJ. 2020 Oct 5;192(40): E1146-E1155. doi: 10.1503/cmaj.201128. Epub 2020 Sep 9
- 14. Yu JX, **Russell WA**, Asokkumar R, Kaltenbach T, Soetikno R. (2020). Clipping over the scope for recurrent peptic ulcer bleeding is cost-effective as compared to standard therapy: An initial assessment. Gastointestinal Endoscopy Clinics of North America. 2020 Jan;30(1):91-97. doi: 10.1016/j.giec.2019.09.004.
- 15. **Russell WA,** Stramer SL, Busch MP, Custer B. (2019). Screening the blood supply for Zika Virus in the 50 U.S. States and Puerto Rico: A Cost-Effectiveness Analysis. Ann Intern Med. 2019 Feb 5;170(3):164-174. doi: 10.7326/M18-2238. Epub 2019 Jan 8
- 16. Yu JX, **Russell WA**, Ching JH, Kim N, Bendavid E, Owens DK, Kaltenbach T. (2019). Cost effectiveness of endoscopic resection vs transanal resection of complex benign rectal polyps. Clinical Gastroenterology and Hepatology. 2019 Dec;17(13):2740-2748.e6. doi: 10.1016/j.cgh.2019.02.041. Epub 2019 Mar 5.

Pre-Prints

1. **Russell WA**, Buckeridge DL. (2021). Effectiveness of quarantine and testing to prevent COVID-19 transmission from arriving travelers. MedRxiv (preprint). NA: 1-29.

Abstracts/Proceedings

- 1. <u>Su CY</u>, Jagirdar H, Van Den Berg K, Lethola P, Cocheran R, **Russell WA** (2023). Development and international external validation of a model predicting iron maker recovery after blood donation. Society for Medical Making European meeting, Berlin (Germany).
 - Conference Date: 2023/05
- 2. <u>Li W</u>, Galarneau L, Kildea J, **Russell WA** (2023). Assessing the Impact of a Patient Portal Application for Cancer Patients on Missed Appointments. ISPOR 2023, Boston

(USA).

Conference date: 2023/05

3. **Russell WA**, Dong H, Tadrous M, Bearnot B, Khatami N, Jalali MS (2023). Targeted naloxone co-dispensing with prescription opioids: a data-driven cost-effectiveness analysis. Society for Medical Making European meeting, Berlin (Germany).

Conference Date: 2023/05

4. **Russell WA**; Owusu-Ofori S; Owusu-Ofori A; Norman B; Micah E; Custer B. (2021). Cost-effectiveness of adding whole blood pathogen reduction to Ghana's blood safety program. Transfusion. Society for Medical Decision Making 43rd Annual North America Meeting, Virtual, United States of America,

Conference Date: 2021/10

5. **Russell WA**; Scheinker D; Custer B. (2021). Prediction of iron-related adverse donation outcomes for repeat blood donors based on donation interval. Transfusion. AABB Annual Meeting, Virtual, United States of America,

Conference Date: 2021/10

- 6. **Russell WA,** Owusu-Ofori S, Owuwu-Ofori A, Norman B, Micah E, Custer B. (2020). Budget impact and risk reduction assessment of whole blood pathogen reduction in Ghana. Vox Sanguinis. International Society of Blood Transfusion 35th International Congress [postponed due to COVID], Conference Date: 2020/12
- 7. **Russell WA**, Custer B, Brandeau ML. (2020). Method for optimizing a blood safety portfolio with application to transfusion-transmitted arboviruses in the United States. Vox Sanguinis. International Society of Blood Transfusion 35th International Congress

Conference Date: 2020/12

- 8. **Russell WA,** Grebe E, Custer B. (2020). Interactive Tool to Inform COVID-19 Convalescent Plasma Policy and Operations. Medical Decision Making. Society for Medical Decision Making 42nd Annual North American Meeting Conference Date: 2020/10
- 9. **Russell WA**, Custer B, Brandeau ML. (2020). Defer, Test, or Modify? Identifying the Optimal Portfolio of Blood Safety Interventions. Medical Decision Making. Society for Medical Decision Making 42nd Annual North American Meeting Conference Date: 2020/10
- 10. **Russell WA**, Grebe E, Custer B. (2020). Projecting COVID-19 Convalescent Plasma Production, Supply, and Demand during an Epidemic. Transfusion. AABB 2020 Annual Meeting,

Conference Date: 2020/10

- 11. **Russell WA,** Scheinker D, Custer B. (2020). Personalized Inter-Donation Intervals to Manage Risk of Iron- Related Adverse Events in Repeat Blood Donors. Medical Decision Making. Society for Medical Decision Making 41st Annual North American Meeting, (E1-E379), Conference Date: 2019/10
- 12. **Russell WA**, Scheinker D, Custer B. (2019). Personalizing inter-donation intervals for repeat blood donors using machine learning. Vox Sanguinis. International Society of Blood Transfusion 29th Regional Congress, (5-240), Conference Date: 2019/6
- Russell WA, Stramer SL, Busch MP, Custer B. (2018). A Cost-Effectiveness Microsimulation Model of Screening Donated Blood for Zika Virus in the United States. Medical Decision Making. Society for Medical Decision Making 40th Annual North American Meeting, (E1-E344), Conference Date: 2018/10
- 14. **Russell WA**, Stramer SL, Busch MP, Custer B. (2018). Cost-effectiveness of screening the blood supply for Zika in the Fifty United States and Puerto Rico.Vox Sanguinis. International Society of Blood Transfusion 35th International Congress, , Conference Date: 2018/6

Invited Lectures, Talks, Presentations:

[Note: presentations have been separated from abstracts to distinguish between work submitted to peer-reviewed scientific conferences and invited presentations. Overlap in the title of presentations reflects the number of groups expressing interest in a particular project or topic.]

- 1. (2023) Targeted naloxone co-dispensing with prescription opioids: a data-driven simulation modeling analysis. INFORMS Healthcare 2023 meeting, 27 July 2023
- 2. (2023) Informing targeted public health measures with data-driven decision modeling. Network of Alberta Health Economists (NOAHE) rounds at UAlberta and UCalgary, on 17 May, 2023
- 3. (2023) Informing targeted public health measures with data-driven decision modeling. University of Washington Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute, on 12 April, 2023
- 4. (2023) Neighborhood characteristics in blood donor-based COVID-19 serosurveillance
 Presented at the COVID-19 Immunity Task Force Scientific Meeting, 9 March 2023
- (2023) Considering the representativeness of residual blood cohorts for population health surveillance.
 Presented at the COVID-19 Immunity Task Force Surveillance Workshop, 7 March 2023

- 6. (2023) Informing targeted public health measures with data-driven decision modeling. Presented at the Dalla Lana School of Public Health University of Toronto, 13 February 2023
- 7. (2023). Informing targeted public health measures with daa-driven decision modeling Dalla Lana School of Population and Global Health, University of Toronto, Toronto, Canada
- 8. (2022). Economic evaluation and decision-analytic modeling for blood banking and transfusion medicine. State of the Science in Transfusion Medicine
 Novel Data Sciences Working Group, US National Institutes of Health, Virtual
- 9. (2022). Blood collectors and public health emergencies. McGill Bicentennial Global Health Week 2022,
 Montreal, Canada
- 10. (2021). Models to inform safe blood collection. Departmental Seminar at the University of Utah Department of Population Health Sciences, United States of America
- (2021). Tailoring minimum blood donation intervals to individual risk for iron-related adverse outcomes.
 Institute for Operations Research and Management Science (INFORMS) Healthcare, United States of America
- 12. (2021). Models to inform safe blood collection. Departmental Seminar at the University of North Carolina Charlotte Department of Public Health Sciences, United States of America
- 13. (2021). Decision-analytic modeling to inform blood safety policy. Group for Research in Decision Analysis (GERAD) Seminar, Canada
- 14. (2021). Model-based assessment of blood safety policies. McGill Epidemiology and Biostatistics Departmental Seminar, Canada
- 15. (2020). Safe Blood Donation: Health Policy, Medicine, and Modeling. Departmental seminar, Department of Mechanical, Industrial, & Aerospace Engineering, Montreal, Canada
- 16. (2020). Effectiveness of quarantine and testing to prevent COVID-19 transmission from arriving travelers. CanCOVID/PHAC Scientific Panel of Quarantine, Canada
- 17. (2020). Safe Blood Donation: Health Policy, Medicine, and Operations Management. Departmental seminar, Desautels Faculty of Management, McGill University, Montreal, Canada

- 18. (2020). A framework for identifying the optimal portfolio of blood safety interventions. Institute for Operations Research and Management Science (INFORMS) Annual Meeting, Seattle, United States of America
- 19. (2019). Operationalizing individual risk prediction algorithms in healthcare settings. Institute for Operations
 Research and Management Science (INFORMS) Healthcare, Boston, United States of America
- 20. (2019). Predicting chronic kidney disease in pediatric acute kidney injury survivors. Big Data in Precision
 Health, Stanford, United States of America

Press Interviews and Media Mentions

2023/01	"AABB Foundation grant recipient's research could improve donor safety and blood supply with risk-based iron recovery periods" by Kerri Wachter. Association for the Advancement of Blood and Biotherapies (AABB) News, January 2023
2022/11/09	"Medication Treatment for Addiction is Shorter for Black and Hispanic Patients, Study Finds" by Emily Baumgaertner. New York Times November 2022 https://www.nytimes.com/2022/11/09/health/opioid-addiction-treatment-racial-disparities.html
2021/03	"Should the United States keep screening all blood donations for Zika?" by Alton Russell. Stanford Engineering Magazine March 2021. https://engineering.stanford.edu/magazine/article/should-united-states-keep-screening-all-blood-donations-zika
2020/12	"Collecting COVID-19 convalescent plasma: supply and demand considerations" by Alton Russell and Eduard Grebe. ISBT Transfusion Today December 2020. https://www.isbtweb.org/resources/publications/transfusion-today.html
2020/01/01	New Technologies Hold Promise for Transfusion Medicine, AABB News March 2020 http://www.aabb.org/programs/publications/news/Pages/default.aspx