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Jamie I. Forrest PhD, MPH

Global Health Implementation Science & Digital Health Equity Researcher

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Research Summary

My research is grounded in a commitment to equity and local agency, evolving from community-driven biomedical and socio-behavioural studies among gay and bisexual men to the pragmatic analysis of global health innovation and information systems. With foundational training in quantitative public health methods, I have consistently sought to center research questions around the lived realities and priorities of marginalized communities, ensuring that evidence not only meets scientific standards, but also meaningfully serves those it is intended to benefit. Years spent embedded with Rwanda's Ministry of Health, co-developing and scaling digital health information systems, provided deeper insights into the intersection of technology, data sovereignty, and sustainable innovation in resource-limited settings.

During the COVID-19 pandemic, I led global clinical research operations across 22 sites on three continents, generating actionable evidence for repurposed therapies at unprecedented speed. While these experiences brought into sharp focus the well-established tension between speed

and methodological rigor, I also saw how the pressure for rapid results can, if unchecked, exacerbate inequities in research capacity and governance—especially in low- and middle-income contexts. My response has been to advance adaptive and pragmatic research methods that safeguard scientific integrity while intentionally promoting equity and amplifying local voices.

Currently, as a Postdoctoral Fellow at the University of British Columbia, my work examines how the adoption of artificial intelligence, the spread of digital misinformation, and shifting models of governance are reshaping public health emergency response on a global scale. Looking ahead, my aim is to unite ecosystem-level analyses with practical implementation tools for policymakers and practitioners—helping to operationalize resilient, equitable, and locally driven health systems in the face of accelerating digital transformation.

Research Interests

- AI Governance and Health Equity: Examining how artificial intelligence adoption practices, governance frameworks, and data sovereignty protections can advance equity while strengthening clinical research capacity during public health emergencies
- **Digital Health Information Systems**: Implementation science approaches to contextually adaptive technology integration in resource-limited settings, with emphasis on local ownership and sustainable health systems strengthening
- Clinical Research Infrastructure Resilience: Adaptive trial methodologies and ecosystem-level analyses of global research networks' capacity to generate rapid, rigorous evidence during health emergencies
- **Information Integrity in Public Health**: Investigating the intersection of digital misinformation, trust, and effectiveness in public health emergency responses, particularly impacts on marginalized communities
- Community-Centred Implementation Science: Participatory methodologies that prioritise local agency and lived realities in the design, evaluation, and scaling of health innovations
- Technology Equity and Data Sovereignty: Critical analyses of power dynamics, access patterns, and community control in digital health adoption across diverse global contexts

Education

Doctor of Philosophy (Population and Public Health)

• Institution: University of British Columbia

• Location: Vancouver, BC, Canada

• Year: 2016-2022

- **Thesis**: Mental and sexual health implications of social networking: A population health case study of geo-social networking among gay and bisexual men in Canadian urban setting (2013-2018)
- Supervisors: Dr. Gina Ogilvie, Dr. David Moore, Dr. Mark Gilbert, Dr. Troy Grennan

Master of Public Health (Global Health)

• Institution: Simon Fraser University

• Location: Burnaby, BC, Canada

• Year: 2007-2009

- **Practicum Project**: Perceptions of HIV and fertility among adolescents in Soweto, South Africa
- Supervisors: Dr. Robert Hogg and Dr. Angela Kaida
- Field Work: 6 months at Perinatal HIV Research Unit, Chris Hani Baragwanath Hospital, Soweto

Bachelor of Science Honours (Microbiology)

• Institution: University of Guelph

• Location: Guelph, Ontario, Canada

• Year: 2003-2007

• **Thesis**: Quorum Sensing in Campylobacter jejuni: A Molecular Mechanism of Pathogenesis

• Supervisor: Dr. Chris Whitfield

Continuing Education

- Certificate in Leadership, Skills Training, and Partnership Development in Global Health |
 Clinton Global Initiative University (CGIU) | 2017
- Certificate in Health Economic Analytics | University of Alberta | 2014
- Certificate in Health Research Project Management | Vancouver Coastal Health Authority
 | 2011
- Certificate in New Investigative Research in HIV | Canadian Association for HIV Research | 2010

Professional Experience

Research & Strategy Lead

• Organization: Purpose Africa

• Location: Ethiopia, Rwanda, Nigeria (Remote)

Start Date: 2023End Date: 2025

• **Description**: Led strategic implementation of networked clinical research capacity development across 12+ African countries. Developed comprehensive MELSE (Monitoring, Evaluation, Learning & Stakeholder Engagement) framework for clinical research and data science capacity building. Established partnerships between academic institutions, Ministries of Health, and biopharma industry.

Chief Partnerships Officer

• Organization: Platform Life Sciences Inc.

• Location: Vancouver, BC, Canada (Global Operations)

Start Date: 2021End Date: 2023

• **Description**: Executive Director of global clinical trial operations for the TOGETHER Trial Consortium. Connected business strategy to global clinical networks for research operations in Rwanda, Brazil, Pakistan, and South Africa. Developed innovative approaches to clinical research infrastructure and capacity building.

Director of Global Health Strategy

• Organization: Cytel Canada Health Inc.

• Location: Vancouver, BC, Canada

Start Date: 2020End Date: 2021

• **Description**: Led team of 4 full-time employees in business development strategy. Delivered successful projects for Bill and Melinda Gates Foundation, UNICEF, and Health Data Research UK. Developed web-based tools for policymakers to model COVID-19 pandemic impacts and track clinical trials.

Managing Director (East Africa)

• Organization: MTEK Sciences Inc.

• Location: Kigali, Rwanda

Start Date: 2017End Date: 2020

• **Description**: Managed 3 locally based full-time staff and international support team. Coled development of Rwanda Health Analytics Platform (RHAP), a web-based interoperability tool improving evidence-informed decision-making for policymakers. Provided ongoing scientific and data analytic support to Rwanda Biomedical Centre, Division of HIV, STIs and Viral Hepatitis. Successfully implemented \$1M+ in research grants from Gates Foundation, Grand Challenges Canada, CIHR, and Gilead Sciences. Advised Dean of Health Sciences at University of Global Health Equity on Research Institute development and launch. Co-led successful bid for Rwanda to host International Conference on HIV/AIDS and STIs in Africa (ICASA). Regular guest lectures and mentorship of MSc and PhD students at University of Rwanda, School of Population and Public Health.

Research Program Manager Field Research Experience

• Organization: Perinatal HIV Research Unit, Chris Hani Baragwanath Hospital

• Location: Soweto, South Africa

• Year: 2008-2009

• **Description**: 6-month research fellowship conducting HIV and fertility research among adolescents. Community-based participatory research methods. Qualitative and quantitative data collection in a suburban South African setting.

Academic Positions

Postdoctoral Research Fellow

• Organization: Faculty of Applied Science, School of Nursing, University of British Columbia

• Location: Vancouver, BC, Canada

Start Date: 2025End Date: Present

• **Description**: Health Equity & Resilience in Outbreaks (HERO) Lab of Assistant Professor, Dr. Meaghan Thumath. Investigating digital misinformation's impact on public

health emergency response effectiveness, with particular focus on implications for marginalized communities and health equity outcomes. Developing evidence-based frameworks for digital enablers that strengthen public health system resilience during health emergencies. Advancing research on AI governance, information integrity, and technology equity in global health contexts.

Adjunct Assistant Professor

• Organization: School of Public Health, College of Medicine & Health Science, University of Rwanda

Start Date: 2018End Date: Present

Scientific Director

• Organization: TAIFA-FIALA (Tracking AI Funding in Africa) Project

• Location: Rwanda/Canada

Start Date: 2024End Date: Present

• **Description**: Co-founded and co-lead with Africa Quantitative Sciences, scientific strategy for a digital platform research ecosystem tracking AI innovations and funding streams in African contexts.

Senior Research Coordinator

• Organization: Health Research Methods, Evidence & Impact, McMaster University

Start Date: 2019End Date: 2024

• **Description**: Led grant submissions, managed grant administration, coordinated academic networks. Managed student engagement and mentored division students.

Senior Research Scientist

• Organization: University of British Columbia, Faculty of Medicine, mHealth Research Team

Start Date: 2016End Date: 2017

• **Description**: Led original research evaluating WelTel mobile health technology across US, Canada, South Africa, Kenya, and Rwanda. Published first-author review of mobile health technologies supporting HIV treatment/prevention in Africa.

Research Program Coordinator

• **Organization**: BC Centre for Excellence in HIV/AIDS, Division of Epidemiology & Population Health

Start Date: 2011End Date: 2015

• **Description**: Coordinated HIV bio-behavioural longitudinal cohort study using respondent-driven sampling (RDS). Managed \$2M+ NIH/NIDA and CIHR-funded research program (Momentum Health Study). Built extensive network of multidisciplinary investigators and community partnerships.

Knowledge Translation Coordinator

• **Organization**: BC Centre for Excellence in HIV/AIDS, Division of Epidemiology & Population Health

• Start Date: 2010 • End Date: 2011

• **Description**: CIHR-funded three-year initiative on health and well-being of people living with HIV (LISA Study). Coordinated knowledge translation activities across British Columbia.

Consulting & Strategic Advisory Roles

Digital Solutions Consultant

• Organization: Fair Price Pharma

Location: Vancouver, BCStart Date: March 2025

• End Date: July 2025

• **Description**: Designed and implemented two digital solutions for regulatory reporting of controlled substances and relationship management of prescribing physicians and nurse practitioners.

Technical Advisor

• Organization: Orgmatch Inc.

• Location: Vancouver, BC

Start Date: 2021End Date: 2023

• Description: Strategic direction and technical services for business development and

grant-making.

Consultant

• Organization: APMG Health Inc.

• Location: Washington, DC

Start Date: 2016End Date: 2018

• **Description**: Project Lead: Voluntary Services India proposal for national scale-up of transgender sexual health services. Co-project lead: Global Fund in-country assessments for key populations HIV investments in Cameroon, Guyana, and Haiti.

Senior Research Associate

• Organization: Global Evaluative Sciences

• Location: Vancouver, BC

Start Date: 2015End Date: 2018

• **Description**: WHO consultant for 2018 Consolidated Guidelines for HIV Treatment. Rwanda Biomedical Center analytic support for national HIV service delivery program.

Research Director

• Organization: Be the Change Group Inc.

• Location: Vancouver, BC

Start Date: 2012End Date: 2017

• **Description**: Strategic planning for Youth Reference Group, MSM Global Forum. Needs assessment for Interior Health Authority Medical Health Officer.

Teaching, Curriculum Development & Student Mentorship

Invited Lecturer

• Organization: University of British Columbia, School of Population & Public Health

• Location: Vancouver, Canada

• Years: 2023, 2024

• Courses: Principles of Global Health

Course Instructor

• Organization: University of Rwanda, School of Public Health

• Location: Kigali, Rwanda

• Years: 2017-2019

• **Courses**: Population Health Research Methods; Clinical Research Partnerships: Operational Methods in Implementing Trials in Global Health

• **Description**: Led transition from practicum-focused to research-intensive graduate programs. Regular guest lectures on advanced epidemiological methods and implementation science.

Member, Curriculum Development Committee

• Organization: University of Global Health Equity

• Location: Butaro, Rwanda

• Years: 2018-2019

• **Description**: Member of the Curriculum Development Committee for a new research-based MSc and PhD program. Led development of a formal report and recommendations on curriculum and accreditation requirements for research-focussed graduate programs. Advised Dean of Health Sciences on Research Institute development and launch.

Invited Lecturer

• Organization: Simon Fraser University, Faculty of Health Sciences

• Location: Burnaby, British Columbia

• Years: 2008-2013

• **Courses**: HSCI 431: The Global HIV/AIDS Epidemic; HSCI 486: Global Perspectives on Sexual and Reproductive Health

• **Teaching Assistant**: HSCI 212: Perspectives on Infectious Disease and Immunology; HSCI 140: Perspectives on Alternative and Complementary Medicine

Graduate Student Co-Supervision

- Diya Jhuti, McMaster University (2021): Interferon therapies for COVID-19 treatment
- Assumpta Mukabutera, University of Rwanda (2018-2019): Population health research methods
- Corrine Karema, University of Rwanda (2017-2018): Clinical research implementation
- Peter Hoong, Simon Fraser University (2013): Substance use among MSM in Vancouver
- Blake Stitilis, University of British Columbia (2012): Community-level HIV intervention evaluation
- Ashleigh Rich, University of British Columbia (2012): MSM community definitions and HIV treatment

Research Grants & Funding Leadership

Total Funding Managed: \$10M+ USD as Principal/Co-Investigator

Scaling TOGETHER Trial Network Infrastructure

• Agency: Latona Foundation

• **Amount**: 10,000,000 USD

• Start Date: 2022 • End Date: 2024

• Role: Co-Investigator

• Status: Completed

Building clinical trial infrastructure for COVID-19 repurposed therapies

• Agency: Rainwater Charitable Foundation

• **Amount**: 500,000 USD

Start Date: 2021End Date: 2022

• Role: Co-Investigator

• Status: Completed

Investigating trauma in Hepatitis C transmission and care microelimination in Rwanda

• Agency: Gilead Sciences Foundation

• Amount: 230,000 USD

Start Date: 2019End Date: 2020

Role: Co-InvestigatorStatus: Completed

Strengthening Health Service Delivery using predictive ML algorithms and data visualization

• Agency: Grand Challenges Canada

• Amount: 220,000 USD

Start Date: 2018End Date: 2020

Role: Co-InvestigatorStatus: Completed

Family Planning and Sexual Reproductive Health needs assessment, Kigali

• Agency: Association International de Maires Francophones

• **Amount**: 10,000 USD

Start Date: 2019End Date: 2020

Role: Co-InvestigatorStatus: Completed

Building Rwanda-British Columbia Research Partnership on Key Population Size Estimation

• Agency: BC Centre for Disease Control Foundation

• **Amount**: 6,700 CAD

• Start Date: 2015 • End Date: 2016 • Role: Co-Principal Investigator (with Dr. Gina Ogilvie)

• Status: Completed

Publications

Summary

- Years Covered: 2009 - 2025

- Total Publications Indexed on PubMed: 62

- H-index: 23

- Publications with more than 100 Citations: 14

- Total Number of Citations: 4096

COVID-19 Clinical Research Outcomes

Effect of early treatment with fluvoxamine on risk of emergency care and hospitalisation among patients with COVID-19: the TOGETHER randomised, platform clinical trial

• Authors: Reis, G., Silva, E.A.S.M., Silva, D.C.M., Thabane, L., Milagres, A.C., Ferreira, T.S., Dos Santos, C.V.Q., De Souza Campos, V.H., Nogueira, A.M.R., De Almeida, A.P.F.G., Callegari, E.D., De Figueiredo Neto, A.D., Savassi, L.C.M., Simplicio, M.I.C., Ribeiro, L.B., Oliveira, R., Forrest, J.I., Ruton, H., Blouw, H., Mammen, C., Karita, E., Pillay, S., Rayner, C.R., Guo, C.M., Snedecor, S.J., Guyatt, G.H., Thorlund, K., & Mills, E.J.

• Journal: The Lancet Global Health

Year: 2022Volume: 10Issue: 1

• Pages: e42-e51

• **DOI**: 10.1016/S2214-109X(21)00448-4

• Status: Published

Effect of early treatment with ivermectin among patients with Covid-19

• Authors: Reis, G., Silva, E.A.S.M., Silva, D.C.M., Thabane, L., Milagres, A.C., Ferreira, T.S., Dos Santos, C.V.Q., De Souza Campos, V.H., Nogueira, A.M.R., De Almeida, A.P.F.G., Callegari, E.D., De Figueiredo Neto, A.D., Savassi, L.C.M., Simplicio, M.I.C., Ribeiro, L.B., Oliveira, R., Harari, O., Forrest, J.I., Mills, E.J., Thorlund, K., & Guyatt, G.H.

• Journal: New England Journal of Medicine

Year: 2022Volume: 386

• Issue: 18

• Pages: 1721-1731

• DOI: 10.1056/NEJMoa2115869

• Status: Published

Early treatment with pegylated interferon lambda for Covid-19

• Authors: Reis, G., Moreira Silva, E.A.S., Silva, D.C.M., Thabane, L., Singh, G., Park, J.J.H., Daher, A., Saucedo, A.S.F., De Figueiredo Neto, A.D., Oliveira, Z.J.C., Harari, O., Forrest, J.I., Ruton, H., Mills, E.J., Thorlund, K., & Guyatt, G.H.

• Journal: New England Journal of Medicine

• Year: 2023

• **Volume**: 388

• **Issue**: 6

• Pages: 518-528

• DOI: 10.1056/NEJM0a2209760

• Status: Published

COVID-19 Clinical Research Methods

Resilient clinical trial infrastructure in response to the COVID-19 pandemic: lessons learned from the TOGETHER randomized platform clinical trial

• Authors: Forrest, J.I., Rawat, A., Duailibe, F., Guo, C.M., Thorlund, K., Guyatt, G.H., & Mills, E.J.

• Journal: American Journal of Epidemiology

• Year: 2022

• **Volume**: 191

• **Issue**: 3

• Pages: 409-417

• DOI: 10.1093/aje/kwab284

• Status: Published

Digital Health Research and Methods

Mobile health applications for HIV prevention and care in Africa

• Authors: Forrest, J.I., Wiens, M., Kanters, S., Nsanzimana, S., Lester, R.T., & Mills, E.J.

• Journal: Current Opinion in HIV and AIDS

• Year: 2015

• **Volume**: 10

• **Issue**: 6

• **Pages**: 464-471

• **DOI**: 10.1097/COH.0000000000000198

• Status: Published

A real-time dashboard of clinical trials for COVID-19

• Authors: Thorlund, K., Dron, L., Park, J., Hsu, G., Forrest, J.I., & Mills, E.J.

• Journal: The Lancet Digital Health

• Year: 2020 • Volume: 2

• **Issue**: 6

• Pages: e286-e287

• **DOI**: 10.1016/S2589-7500(20)30086-8

• Status: Published

HIV/AIDS Treatment and Care Continuum

HIV care continuum in Rwanda: a cross-sectional analysis of the national programme

• Authors: Nsanzimana, S., Kanters, S., Remera, E., Forrest, J.I., Binagwaho, A., Condo, J., Vlahov, D., Nsigaye, R., Seminega, B., Rwigema, J., Uwimana, J., Riedel, D.J., Wilson, D.P., Semitala, F.C., Ford, N., & Mills, E.J.

• Journal: The Lancet HIV

Year: 2015Volume: 2Issue: 5

• Pages: e208-e215

• **DOI**: 10.1016/S2352-3018(15)00024-7

• Status: Published

Life expectancy among HIV-positive patients in Rwanda: a retrospective observational cohort study

- Authors: Nsanzimana, S., Remera, E., Kanters, S., Chan, K., Forrest, J.I., Binagwaho, A., Condo, J., Mills, E.J., Lanièce, I., Karema, C., Riedel, D.J., & Kanters, S.
- Journal: The Lancet Global Health

• Year: 2015

• Volume: 3

• **Issue**: 3

• Pages: e169-e177

• **DOI**: 10.1016/S2214-109X(14)00364-X

• Status: Published

Many pathways to ending AIDS by 2030

• Authors: Nsanzimana, S., & Forrest, J.I.

• Journal: The Lancet HIV

Year: 2018Volume: 5Issue: 6

• **Pages**: e266-e267

• **DOI**: 10.1016/S2352-3018(18)30131-0

• Status: Published

Sexual Health Research

Perceptions of HIV and fertility among adolescents in Soweto, South Africa: stigma and social barriers continue to hinder progress

• Authors: Forrest, J.I., Kaida, A., Dietrich, J., Miller, C.L., Hogg, R.S., Gray, G., & Kahn, K.

• Journal: AIDS and Behavior

Year: 2009Volume: 13Issue: 6

• **Pages**: 1106-1118

• **DOI**: 10.1007/s10461-009-9552-z

• Status: Published

Selected Invited Presentations

• Northern Ontario School of Medicine (2012): "Treatment as Prevention and MSM in British Columbia"

- 7th Gay Men's Health Summit, Vancouver (2011): "Conceptualizing the field of gay men's health: Epidemiological approaches"
- Faculty of Nursing, University of Victoria (2011): "Payers and players in global health: A socio-ecological approach"
- World AIDS Day Keynote, University of Ottawa (2009): "Evidence for universal access to antiretroviral therapy"

Conference Presentations and Attendance

Oral Presentations (Selected)

- OHTN Annual Research Conference (2013): "The socio-cultural context of substance use among gay communities in Vancouver, BC"
- 22nd Canadian Association for HIV Research Conference (2013): "Exploring HAART optimism and sexual altruism in Vancouver MSM cohort"
- OHTN Research Conference (2012): "Challenges and opportunities in using respondent driven sampling for HIV research"

Conference Attendance (Selected)

- Grand Challenges Canada Writing Workshop, Utrecht, Netherlands (2019)
- XXII International AIDS Conference, Amsterdam, Netherlands (2018)
- Clinton Global Initiative University Conference, Boston, USA (2017)
- XXI International AIDS Conference, Durban, South Africa (2016)
- 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention, Cape Town, South Africa (2009)
- 2014 Canadian HIV/SAIDS Research Conference, Montreal, Quebec (2014)

Professional Service

Editorial & Peer Review Activities

- The Lancet Global Health (2021 present)
- Journal of Urban Health (2018 present)
- Journal of Medical Internet Research (2018 present)
- BMC Global Health (2017 present)

Conference Organization & Leadership

- Member of the Executive Organizing Committee: International Conference on HIV/AIDS and STIs in Africa (ICASA), Rwanda (2019)
- Program Committee Member: Multiple international conferences

Professional Memberships

- International AIDS Society (2008 2018)
- Canadian Association for HIV Research (2011 2018)
- YouthCO HIV and HepC Society of British Columbia (2011 2018)
- Global Health Council (2007-2009)

Community Engagement & Leadership

Board Member

• Organization: Africa Quantitative Sciences

• Location: Kigali, Rwanda

• **Start Date**: 2022

• End Date: Present

• **Description**: Provide strategic direction and governance to an innovative data analytics consultancy in Rwanda

Board Chair

• Organization: YouthCO HIV and HepC Society of British Columbia

• Location: Vancouver, Canada

Start Date: 2011End Date: 2018

• **Description**: Led strategic direction for province-wide youth HIV/HepC services and peer support programs

Committee Member

• Organization: Vision Vancouver West End Community Action Network

• Location: Vancouver, Canada

• **Start Date**: 2013

• End Date: 2018

• **Description**: Community advocacy and policy development

Recording Secretary

• Organization: Manhattan Housing Co-operative Association

• Location: Vancouver, Canada

• Start Date: 2012 • End Date: 2018

• Description: Non-profit housing governance and community development

Head Camp Coordinator

• Organization: BC Easter Seals Camp, BC Lions Society for Children with Disabilities

• Years: 2007, 2010

• **Description**: Coordinated summer camping programs for children with mental and physical disabilities

Technical Skills & Expertise

Programming & Analytics

• Languages: Python, TypeScript, R, SQL, SAS

• Platforms: Power BI, Tableau

• **Specializations**: Health analytics platform development, predictive modelling, machine learning applications in health

Research Methodologies

• Expertise: Respondent-driven sampling, implementation science frameworks, mixed-methods research design, longitudinal cohort studies, systematic reviews and meta-analyses, health economic analytics, clinical trial design and management

Digital Health & Technology

• Expertise: Web-based health analytics platform development, mobile health (mHealth) intervention design, electronic health record (EHR) integration, health information systems interoperability, predictive modelling and machine learning applications in health

Languages

• English: Native

• French: Intermediate (Speaking, Reading, Writing, Comprehension)

• Kinyarwanda: Novice (Speaking, Comprehension)

• Swahili: Novice (Speaking, Comprehension)

References

Available upon request