Michael P. Williams

Personal Website: clashmt.github.io

Email : mwilliams116@mgh.harvard.edu
Mobile : +1-585-313-3912

RESEARCH STATEMENT

My research unpacks how the intersection of neighborhood, social, and digital spaces affect mental, behavioral, and sexual health, digital health interventions, and access to health services. Previously funded by an F31 training fellowship through the National Institute of Child Health and Human Development, my dissertation work examines how neighborhood, social, and digital spaces influence HIV risk and the effectiveness of a digital pre-exposure prophylaxis adherence intervention among sexual and gender minority adolescents. Currently funded by a T32 fellowship through the National Institute on Aging, I am developing and evaluating digital mindfulness interventions for emerging adults with social media addiction and caregivers of persons living with dementia. With a multidisciplinary background in epidemiology, biostatistics, game design, human-computer interaction, and philosophy of science, my long-term goal is to design and robustly evaluate digital health interventions to improve mental and sexual health among adolescents.

EDUCATION

PhD Population Health
September 2018 - August 2024
Northeastern University, Advisor: Dr. Danielle Haley
Boston, MA

MS Game Science and Design
September 2014 - May 2017
Northeastern University, Advisor: Dr. Seth Cooper
Boston, MA

BS Psychology, BA English Literature
September 2009 - May 2013
State University of New York at Buffalo
Buffalo, NY

PROFESSIONAL EXPERIENCE

Post-Doctoral T32 Research Fellow
September 2024 - Current
Center for Health Outcomes and Integrated Research, Massachusetts General Hospital
Boston, MA
Lead research utilizing the NIH stage model to develop and evaluate mind-body interventions across the continuum of health and illness. Develop stress and emotional distress reduction interventions which harness novel digital health technologies and community engaged research practices among informal caregivers for those with Alzheimer's disease and related dementias.

Pre-Doctoral F31 Fellow
May 2022 - August 2024
Northeastern University
Boston, MA
Lead research characterizing how convergent neighborhood, social, and digital spaces impact HIV risk and digital PrEP adherence intervention efficacy in sexual and gender minority adolescents. By incorporating a combination of syndemic theory, causal inference approaches, and multilevel statistical modeling, this research combines primary data from the P3 digital PrEP adherence intervention clinical trial with neighborhood measures of structural disparity. This alignment of clinical trial and neighborhood perspectives provides actionable insights for the development and evaluation of digital HIV prevention interventions for sexual and gender minority adolescents.

Research Consultant
September 2020 - Current
Boston University
Boston, MA
Conducted research with Dr. Danielle Haley on the role of geographic access to medical and recreational cannabis retailers, geographic access to alcohol and substance use treatment, prescription drug monitoring programs, health parity laws, and structural disparity on HIV-related clinical outcomes in women participating in the Women's Interagency HIV Study. Developed data pipelines and computational tools to acquire, process, and analyze study data. Lead research comparing the validity of two primary cannabis retailer data sources.

Graduate Research Assistant
September 2018 - August 2020
Northeastern University
Boston, MA
Conducted research investigating how neighborhood attributes relate to geographic access of cannabis retailers and access to alcohol and substance use treatment in the United States.

User Experience Research Intern
April 2018 - August 2018
Rapid7
Cambridge, MA

Conducted qualitative interview and quantitative survey studies on the usability and user experience of Rapid7 cybersecurity products with internal and external stakeholders to inform design choices, feature implementation, and strategic planning.

Research Assistant   February 2018 - May 2018
Health Technology Lab, Northeastern University   *Boston, MA*
Managed participants and study procedures for a clinical trial investigating the use of narrative active-games as an intervention for combating childhood obesity.

Research Assistant   September 2015 - May 2017
Ghost Lab, Northeastern University   *Boston, MA*
Designed, implemented, and feasibility tested a game-like digital application which aided users in constructing Pareto optimal approaches to a multi-factorial debris cleaning problem in post-disaster scenarios.

Funding

Ruth L. Kirschstein Postdoctoral Institutional NRSA (5T32AG081327)   September 2024 - Current
National Institute on Aging, Role: Research Fellow   *$183,024*

Ruth L. Kirschstein Predoctoral Individual NRSA (1F31HD108046)   May 2022 - August 2024
National Institute of Child Health and Human Development, Role: PI   *$138,108*

BARI Research Seed Grant   September 2019 - Current
Boston Area Research Initiative, Role: PI   *$5,000*

Teaching Experience

Graduate Recitation Instructor   September 2020 - December 2021
Foundations of Biostatistics (PHTH 2210), Northeastern University   *Boston, MA*

Guest Lecturer   October 2021
Alcohol, Tobacco, and Other Drugs (SPHSB785), Boston University   *Boston, MA*

Professional Organizations

Harvard SOGIE Health Equity Research Collaborative   October 2020 - Current

Institute of Health Equity and Social Justice Research   September 2018 - August 2024

American Public Health Association   September 2019 - Current

Honors and Awards

Foundation of Digital Games 2017 Honorable Mention Paper, June 2017.

Northeastern RISE 2016 Graduate Interdisciplinary 1st Place Winner, March 2016.

English Honors Distinction, 2010 - 2013.

Dean's List, 2011.

Journal Articles

Williams, Michael, Matt Mahlan, Connor Holmes, Magdalena Pankowska, Manjot Kaur, Aderonke Ilegbusi, and Danielle F. Haley (2024). "Accuracy Differences in Cannabis Retailer Information Ascertained from Webservices and Government-Maintained State Registries Across US States Legalizing the Sale of Cannabis in 2019". In: *Cannabis* 6.2 (), pp. 133–148. ISSN: 2578-0026. DOI: 10.26828/cannabis/2023/000148. URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10361797/ (visited on 01/04/2024).

Haley, Danielle F., Brooke W. Bullington, Phyllis Tien, Andrea K. Knittel, Julie Bobitt, Mirjam-Colette Kempf, Morgan Philbin, David B. Hanna, StarrLa'diamond Lindsey, Seble Kassaye, Jack DeHovitz, Mardge Cohen, Gina Wingood, Deborah L. Jones, Michael P. Williams, Richard J. Wang, and Andrew Edmonds (June 2025). "Patterns of Cannabis Use among Women With HIV in the United States". en. In: *AIDS and Behavior* 29.6, pp. 2022–2032. ISSN: 1573-3254. DOI: 10.1007/s10461-025-04669-z. URL: https://doi.org/10.1007/s10461-025-04669-z (visited on 05/29/2025).

Williams, Michael P., Justin Manjourides, Louisa H. Smith, Crissi B. Rainer, Lisa Hightow-Weidman, and Danielle F. Haley (May 2025). "Neighborhood Disadvantage, Syndemic Conditions, and PrEP Non-Adherence in Young Sexual and Gender Minority Men". en. In: *AIDS and Behavior*. ISSN: 1573-3254. DOI: 10.1007/s10461-025-04722-x. URL: https://doi.org/10.1007/s10461-025-04722-x (visited on 05/29/2025).

Williams, Michael P., Justin Manjourides, Louisa H. Smith, Crissi B. Rainer, Lisa B. Hightow-Weidman, and Danielle F. Haley (Jan. 2025). "Studying the Digital Intervention Engagement–Mediated Relationship Between Intrapersonal Measures and Pre-Exposure Prophylaxis Adherence in Sexual and Gender Minority Youth: Secondary Analysis of a Randomized Controlled Trial". EN. In: *Journal of Medical Internet Research* 27.1. Company: Journal of Medical Internet Research Distributor: Journal of Medical Internet Research Institution: Journal of Medical Internet Research Label: Journal of Medical Internet Research Publisher: JMIR Publications Inc., Toronto, Canada, e57619. DOI: 10.2196/57619. URL: https://www.jmir.org/2025/1/e57619 (visited on 01/13/2025).

St. Vil, Noelle M., Danielle F. Haley, Brooke Montgomery, Michael Williams, Lakeshia Watson, Shuaiqi Zhang, and Gina M. Wingood (Dec. 2024). "An Exploration of Geographic Access to Substance Use Treatment Programs and Violence Against Women". en. In: *Journal of Interpersonal Violence* 39.23-24, pp. 5033–5055. ISSN: 0886-2605, 1552-6518. DOI: 10.1177/08862605241246000. URL: https://journals.sagepub.com/doi/10.1177/08862605241246000 (visited on 12/20/2024).

Conference Papers

Wang, Xiyang, Tiffany Knearem, Fanlu Gui, Srishti Gupta, Haining Zhu, Michael Williams, and J. M. Carroll (2018). "A Safety Net: How Older Adults Build and Maintain Interpersonal Relationships". In: *ACM Transactions on Computer-Human Interaction*. Vol. 2018.

Wang, Xiying, Tiffany Knearem, Fanlu Gui, Srishti Gupta, Haining Zhu, Michael Williams, and John M. Carroll (May 2018). "The Safety Net of Aging in Place: Understanding How Older Adults Construct, Develop, and Maintain Their Social Circles". In: *Proceedings of the 12th EAI International Conference on Pervasive Computing Technologies for Healthcare*. PervasiveHealth '18. New York, NY, USA: Association for Computing Machinery, pp. 191–200. ISBN: 978-1-4503-6450-8. DOI: 10.1145/3240925.3240935. URL: https://doi.org/10.1145/3240925.3240935 (visited on 03/29/2021).

Sarkar, Anurag, Michael Williams, Sebastian Deterding, and Seth Cooper (2017). "Engagement Effects of Player Rating System-based Matchmaking for Level Ordering in Human Computation Games". In: *Proceedings of the 12th International Conference on the Foundations of Digital Games*. FDG '17. New York, NY, USA: ACM, 22:1–22:10. ISBN: 978-1-4503-5319-9. DOI: 10.1145/3102071.3102093. URL: http://doi.acm.org/10.1145/3102071.3102093.

Williams, Michael, Anurag Sarkar, and Seth Cooper (Sept. 2017). "Predicting Human Computation Game Scores with Player Rating Systems". en. In: *Entertainment Computing – ICEC 2017*. Lecture Notes in Computer Science. Springer, Cham, pp. 284–289. ISBN: 978-3-319-66714-0 978-3-319-66715-7. DOI: 10.1007/978-3-319-66715-7_31. URL: https://link.springer.com/chapter/10.1007/978-3-319-66715-7_31 (visited on 10/15/2017).

Williams, Michael, Hassen Gharbi, Aybike Ulusan, Ozlem Ergun, Zhu Xiaofeng, Shiyu Zhang, and Casper Harteveld (Oct. 2016). "Toward Human in the Loop Optimization Through Game-Based Experiments". In: *Proceedings of the 2016 Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts*. CHI PLAY Companion '16. Austin, Texas, USA: Association for Computing Machinery, pp. 351–358. ISBN: 978-1-4503-4458-6. DOI: 10.1145/2968120.2987733. URL: https://doi.org/10.1145/2968120.2987733 (visited on 06/30/2020).

Oral Presentations

Williams, Michael P, Aderonke Ilegbusi, Connor Holmes, Magdalena Pankowska, Andie Oates, Kyle Nameth, and Haley Danielle (Oct. 2021). "State-level differences in validity of cannabis retailer locations ascertained from online listings and government-maintained state registries". In: American Public Health Association.

Haley, Danielle, Michael Williams, Stephanie Beane, Manjot Kaur, Magdalena Pankowska, Hannah LF Cooper, Sabriya Linton, Andrew Edmonds, Vivian Go, Daniel Kim, Leo Beletsky, Zev Ross, Adaora A. Adimora, Daniel Bauer, Julia Sabrick, Jean McGuire, and Janet Cummings (Nov. 2019). "Association between census block group poverty and geographic accessibility of drug and alcohol treatment facilities accepting Medicaid". In: American Public Health Association. URL: https://apha.confex.com/apha/2019/meetingapp.cgi/Paper/447194 (visited on 06/30/2020).

Poster Presentations

Holmes, Connor, Laura Senier, Claire Yu, Michael P Williams, and Danielle F Haley (Oct. 2021). ""It fills the glass somewhat": Examining the psychosocial gratifications of dating apps for transgender and gender non-conforming individuals during COVID-19". In.

Listerud, Hannah, Steven Meanley, Jose Bauermeister, Lisa Hightow-Weidman, Michael Williams, T Seblework, J Knies, R Galloway, P Valente, Katie Biello, J Hill-Rorie, J Dormitzer, D Flores, K Mayer, and Robin Stevens (Aug. 2020). "Natural language processing and content analysis of youth's social media posts to inform implementation of next generation HIV prevention modalities". In: San Francisco, CA, US.

Pankowska, Magda, Danielle Haley, Carmel Salhi, Aderonke Ilegbusi, and Michael Williams (2020). "Availability of HIV and Hepatitis C testing at drug and alcohol treatment facilities offering medications for opioid use disorder." In: Virtual.