

WILLEM COLLIER

Population Health Sciences, University of Utah - Contact: willem.collier@hsc.utah.edu

EDUCATION

University of Utah	<i>2017-Present</i>
PhD - Population Health Sciences - Biostatistics (In Progress)	
University of Utah	<i>2011-2017</i>
Honors BS - Economics	
BS - Mathematics with Statistics Emphasis	

RESEARCH INTERESTS

Bayesian statistics, hierarchical modeling, meta-analysis and meta-regression, evaluation of surrogate endpoints for clinical trials, Bayesian methods used for the design and analysis of clinical trials.

COLLABORATIVE RESEARCH APPOINTMENTS

Graduate Research Assistant - Division of Plastic Surgery, University of Utah School of Medicine
2017-2018

- Provided guidance on design and statistical analysis for surgical outcomes research.
- Performed all phases of analysis from data preparation to statistical analysis on large-scale observational data and data collected at the University of Utah. Observational databases used include the National Surgical Quality Improvement Program Database, the Nationwide Readmissions Database, and the All-Payer-Claims Database.
- Wrote several manuscripts submitted and accepted by peer-reviewed plastic surgery journals.

Graduate Research Assistant - Study Design and Biostatistics Center, University of Utah
2018-Present

- Implemented data preparation and statistical analysis, and contributed to manuscript writing for collaborative projects with the Department of Pediatrics and Orthopedic Surgery at the University of Utah.
- Designed and implemented analysis for methodological development relevant to the evaluation of surrogate endpoints for clinical trials in collaboration with CKD-EPI.

Graduate Research Assistant - Veterans Affairs Administration
2019

- Aided in large-scale data management and data consolidation for policy evaluation research using health records in the VA network.

FUNDING AND AWARDS

Population Health Sciences Graduate Research Assistantship	<i>2017-Present</i>
Marriner S. Eccles Graduate Fellowship	<i>2018-2019</i>
University of Washington Summer Institutes Travel Scholarship	<i>2018</i>
University of Utah Department of Mathematics Research Scholarship	<i>2017</i>
University of Utah Undergraduate Research Opportunities Program	<i>2015</i>
Dan Jones Future Leaders Scholarship	<i>2015</i>

PRESENTATIONS

Conference Talks Given

Are 30-Day Outcomes Enough? Late Infectious Readmissions following Prosthetic-Based Breast Reconstruction - Mountain West Society of Plastic Surgeons Annual Scientific Meeting (2018)

Conference Talks Contributed To

Patient-reported opioid use for tissue expander-based breast reconstruction - Mountain West Society of Plastic Surgeons Annual Scientific Meeting (2019)

TEACHING EXPERIENCE

Undergraduate Teaching Assistant - Department of Mathematics *2015-2017*

Mathematics Tutor - Associated Students of the University of Utah *2015-2017*

ENGAGEMENT

Current Professional Organizations

American Statistical Association

Utah Chapter of the American Statistical Association

Institutional Committee Memberships

Graduate Student Advisory Committee - Population Health Sciences *2017-present*

Equity, Diversity, and Inclusion Committee - Population Health Sciences *2020-present*

ARTICLES IN REFEREED JOURNALS

1. Van Boerum MS, Mann SL, Veith JP, **Collier W**, Hosein RC, Manum JS, Agarwal J, Kwok AC. Patient-reported opioid use for tissue expander-based breast reconstruction. *J Plast Reconstr Aesthet Surg*. 2021 Apr 18;S1748-6815(21)00218-7. doi: 10.1016/j.bjps.2021.03.114. Epub ahead of print. PMID: 34078588.
2. Veith J, **Collier W**, Simpson A, Magno-Padron D, Mast B, Murphy RX Jr, Agarwal J, Kwok A. A Comparison of Common Plastic Surgery Operations Using the NSQIP and TOPS Databases. *Plast Reconstr Surg Glob Open*. 2020 May 27;8(5):e2841. doi: 10.1097/GOX.0000000000002841. PMID: 33133901; PMCID: PMC7572021.
3. Magno-Padron DA, **Collier W**, Kim J, Agarwal JP, Kwok AC. A Nationwide Analysis of Early and Late Readmissions following Free Tissue Transfer for Breast Reconstruction. *J Reconstr Microsurg*. 2020 Jul;36(6):450-457. doi: 10.1055/s-0040-1702175. Epub 2020 Mar 15. PMID: 32172527.
4. Sindt JE, Larsen SD, Dalley AP, **Collier WH**, Brogan SE. The Rate of Infectious Complications After Intrathecal Drug Delivery System Implant for Cancer-Related Pain Is Low Despite Frequent Concurrent Anticancer Treatment or Leukopenia. *Anesth Analg*. 2020 Jul;131(1):280-287. doi: 10.1213/ANE.0000000000004639. PMID: 31990731.
5. Simpson AM, Kwok AC, **Collier WH**, Kim J, Veith J, Agarwal JP. 2011 ACGME Duty Hour Limits had No Association With Breast Reconstruction Complications. *J Surg Res*. 2020 Mar;247:469-478. doi: 10.1016/j.jss.2019.09.058. Epub 2019 Oct 23. PMID: 31668433.
6. Veith J, **Collier W**, Rockwell WB, Pannucci C. Direct Comparison of Patient-completed and Physician-completed Caprini Scores for Plastic Surgery Patients. *Plast Reconstr Surg Glob Open*. 2019 Aug 8;7(8):e2363. doi: 10.1097/GOX.0000000000002363. PMID: 31592033; PMCID: PMC6756651.

7. Mordhorst TR, McCormick ZL, Presson AP, **Collier WH**, Spiker WR. Examining the relationship between epidural steroid injections and patient satisfaction. *Spine J.* 2020 Feb;20(2):207-212. doi: 10.1016/j.spinee.2019.09.024. Epub 2019 Sep 26. PMID: 31563577.
8. **Collier W**, Scheefer Van Boerum M, Kim J, Kwok AC. Are 30-Day Outcomes Enough? Late Infectious Readmissions following Prosthetic-Based Breast Reconstruction. *Plast Reconstr Surg.* 2019 Sep;144(3):360e-368e. doi: 10.1097/PRS.0000000000005903. PMID: 31461001.
9. Veith JP, **Collier W**, Kim J, Agarwal J, Kwok A. A national analysis of readmissions for wound healing complications following the repair of lower back, hip, and buttock pressure ulcers using the Nationwide Readmissions Database. *Am J Surg.* 2019 Apr;217(4):658-663. doi: 10.1016/j.amjsurg.2018.12.013. Epub 2018 Dec 11. PMID: 30638726.

COMPUTER LANGUAGES AND COMPETENCIES

R (proficient)

SAS, STATA, Python (experienced)

Extensive use of Linux cluster for high-performance computing