

TIMOTHY FEENEY

Chapel Hill, North Carolina, United States

thefeeny.netlify.app

[@TFeend](https://twitter.com/TFeend)

feeny@unc.edu

tfeeny@bmj.com

BRIEF PERSONAL STATEMENT

I am currently a PhD student in the Epidemiology department of University of North Carolina, Chapel Hill. I have an MD with clinical training in general surgery and surgical critical care, a masters in clinical biochemistry, and an MPH with focus on epidemiology and biostatistics. My interests are the application of advanced epidemiological methods to observational studies in general surgery and critical care to better understand bias and make causal inferences. Currently my focus is on the use of doubly robust methods and better understanding causal assumptions as they apply to research of surgical disease.

My interests outside of science and math involve my family (wife and 2 daughters), visiting museums, reading and finding great bargains on used books, and SCUBA diving on deep wrecks and inside caves.

EDUCATION

Master of Public Health	May 2017
Harvard University T.H Chan School of Public Health, Boston MA. Quantitative Methods; focus on Epidemiology and Biostatistics	
Doctor of Medicine	May 2014
University of Maryland School of Medicine, Baltimore MD.	
Master of Science	May 2012
University of Maryland School of Medicine, Baltimore MD. Medical Biochemistry	
Bachelor of Science/Bachelor of Arts	May 2008
University of Maryland, College Park, College Park MD. BS: Molecular Biology; <i>cum laude</i> BA: Government and Politics; <i>magna cum laude</i> <i>High Honors in Chemistry and Biochemistry</i> <i>Valedictorian Speaker for College of Chemical and Life Sciences Commencement</i>	

CLINICAL TRAINING

Tufts Medical Center , Boston, MA	7/2015-6/2016
Residency, PGY2, General Surgery	
Stamford Hospital , Stamford, CT	7/2014-6/2015
Internship, General Surgery	

CURRENT POSITION(S)

Study design and analysis consultant	08/2022-Present
UNC School of Medicine, Department of Surgery–UNC-Chapel Hill, Chapel Hill, NC. Support Department of Surgery in design and analysis of studies.	
Graduate Research Assistant	01/2021-Present
Gillings School of Global Public Health–UNC-Chapel Hill, Chapel Hill, NC. Causal inference in observational studies. Supported by R01AI157758 Advisor: Steve Cole, Jessie K. Edwards	
PhD Student in Epidemiology	08/2020-Present
Dept. of Epidemiology–UNC Chapel Hill, Chapel Hill NC. Graduate Advisor: Steve Cole	

Focus on epidemiologic methods and clinical epidemiology, with particular interest in causal inference in observational research

Research Editor

04/2019-Present

The British Medical Journal (BMJ)-London, UK.

Editorial work involving decisions regarding publication in The BMJ.

PREVIOUS PROFESSIONAL EXPERIENCE

Contractor

05/2022-08/2022

RTI-Health Solutions-Research Triangle Park, NC.

Consultant for research studies encompassing pharmaceuticals and vaccinations.

Subject Matter Consultant

05/2021-1/2022

iHeed-Dublin, Ireland.

Subject matter expert in epidemiology and biostatistics for online course development .

PUBLICATIONS

First Authored

“Incidental Adrenal Masses: Adherence to Guidelines and Methods to Improve Initial Follow-Up, A Systematic Review”. In: *Journal of Surgical Research* 269 (Jan. 2022), pp. 18–27. DOI: [10.1016/j.jss.2021.07.041](https://doi.org/10.1016/j.jss.2021.07.041).

“Provider–Patient Language Discordance and Cancer Operations: Outcomes from a Single Center Linked to a State Vital Statistics Registry”. In: *World Journal of Surgery* 44.10 (Oct. 2020), pp. 3324–3332. DOI: [10.1007/s00268-020-05614-y](https://doi.org/10.1007/s00268-020-05614-y).

“Association of Primary Language with Outcomes After Operations Typically Performed to Treat Cancer: Analysis of a Statewide Database”. In: *Annals of Surgical Oncology* 26.9 (Sept. 2019), pp. 2684–2693. DOI: [10.1245/s10434-019-07484-8](https://doi.org/10.1245/s10434-019-07484-8).

“Evaluation of Incidental Adrenal Masses at a Tertiary Referral and Trauma Center”. In: *Surgery* (Oct. 2019). DOI: [10.1016/j.surg.2019.07.034](https://doi.org/10.1016/j.surg.2019.07.034).

“The Association of Primary Language With Emergency General Surgery Outcomes Using a Statewide Database”. In: *Journal of Surgical Research* 244 (Dec. 2019), pp. 484–491. DOI: [10.1016/j.jss.2019.06.082](https://doi.org/10.1016/j.jss.2019.06.082).

“The Independent Effect of Emergency General Surgery on Outcomes Varies Depending on Case Type: A NSQIP Outcomes Study”. In: *The American Journal of Surgery* 216.5 (Nov. 2018), pp. 856–862. DOI: [10.1016/j.amjsurg.2018.03.006](https://doi.org/10.1016/j.amjsurg.2018.03.006).

“Resident and Fellow Participation in Thyroid and Parathyroid Surgery: An ACS-NSQIP Clinical Outcomes Analysis”. In: *Journal of Surgical Research* 220 (Dec. 2017), pp. 346–352. DOI: [10.1016/j.jss.2017.07.030](https://doi.org/10.1016/j.jss.2017.07.030).

Co-Authored

“Limited English Proficiency and Clinical Outcomes After Hospital-Based Care in English-Speaking Countries: A Systematic Review”. In: *Journal of General Internal Medicine* (Feb. 2, 2022). DOI: [10.1007/s11606-021-07348-6](https://doi.org/10.1007/s11606-021-07348-6).

“The Impact of English Proficiency on Outcomes after Bariatric Surgery”. In: *Surgical Endoscopy* (Feb. 28, 2022). DOI: [10.1007/s00464-022-09148-3](https://doi.org/10.1007/s00464-022-09148-3).

“Strategies to Optimize Management of Incidental Radiographic Findings in the Primary Care Setting: A Mixed Methods Study”. In: *The American Journal of Surgery* (Mar. 2021), S0002961021001732. DOI: [10.1016/j.amjsurg.2021.03.038](https://doi.org/10.1016/j.amjsurg.2021.03.038).

“A Web Application for Adrenal Incidentaloma Identification, Tracking, and Management Using Machine Learning”. In: *Applied Clinical Informatics* 11.04 (Aug. 2020), pp. 606–616. DOI: [10.1055/s-0040-1715892](https://doi.org/10.1055/s-0040-1715892).

- “Management Strategies to Promote Follow-Up Care for Incidental Findings: A Scoping Review”. In: *Journal of the American College of Radiology* 18.4 (Dec. 2020), pp. 566–579. DOI: [10.1016/j.jacr.2020.11.006](https://doi.org/10.1016/j.jacr.2020.11.006).
- “Patient-Level Factors Influencing Palliative Care Consultation at a Safety-Net Urban Hospital”. In: *American Journal of Hospice and Palliative Medicine*® (Dec. 16, 2020), p. 104990912098176. DOI: [10.1177/1049909120981764](https://doi.org/10.1177/1049909120981764).
- “Differential Utilization of Palliative Care Consultation Between Medical and Surgical Services”. In: *American Journal of Hospice and Palliative Medicine*® (Aug. 6, 2019), p. 104990911986790. DOI: [10.1177/1049909119867904](https://doi.org/10.1177/1049909119867904).
- “Transferred Emergency General Surgery Patients Are at Increased Risk of Death: A NSQIP Propensity Score Matched Analysis”. In: *Journal of the American College of Surgeons* (Jan. 2019). DOI: [10.1016/j.jamcollsurg.2019.01.014](https://doi.org/10.1016/j.jamcollsurg.2019.01.014).
- “Disease-Causing Mutations in the Promoter and Enhancer of the Ornithine Transcarbamylase Gene”. In: *Human Mutation* 39.4 (Apr. 2018), pp. 527–536. DOI: [10.1002/humu.23394](https://doi.org/10.1002/humu.23394).
- “Laparoscopic Adrenalectomy for Metastatic Disease: Retrospective Cohort with Long-Term, Comprehensive Follow-Up”. In: *Surgery* (Dec. 2018). DOI: [10.1016/j.surg.2018.11.008](https://doi.org/10.1016/j.surg.2018.11.008).
- “Prophylactic Use of Alpha-1 Adrenergic Blocking Agents for Prevention of Postoperative Urinary Retention: A Review & Meta-Analysis of Randomized Clinical Trials”. In: *The American Journal of Surgery* 215.5 (May 2018), pp. 973–979. DOI: [10.1016/j.amjsurg.2018.01.015](https://doi.org/10.1016/j.amjsurg.2018.01.015).
- “Long-Term Follow-up of Blunt Cerebrovascular Injuries: Does Time Heal All Wounds?” In: *Journal of Trauma and Acute Care Surgery* 81.6 (Dec. 2016), pp. 1063–1069. DOI: [10.1097/TA.0000000000001223](https://doi.org/10.1097/TA.0000000000001223).
- “Data Transfer in a Science DMZ Using SDN with Applications for Precision Medicine in Cloud and High-performance Computing”. In: Supercomputing ’15: ESnet SDN Workshop. Austin, TX, 2015, p. 4.
- “Lethal Now or Lethal Later: The Natural History of Grade 4 Blunt Cerebrovascular Injury”. In: *Journal of Trauma and Acute Care Surgery* 78.6 (June 2015), pp. 1071–1075. DOI: [10.1097/TA.0000000000000654](https://doi.org/10.1097/TA.0000000000000654).
- “Analysis of Urea Cycle Gene Transcription Regulation Using Bioinformatic Software and Patient Sequences”. In: *The FASEB Journal* 25 (1_supplement 2011), pp. 564.8–564.8. DOI: [10.1096/fasebj.25.1_supplement.564.8](https://doi.org/10.1096/fasebj.25.1_supplement.564.8).
- “Comprehensive Bioinformatic Analysis of Urea Cycle Gene Transcription Regulation Using Cis-Element over Representation (CLOVER) Software and Patient Sequences to Identify Disease Causing Mutations”. In: *Molecular Genetics and Metabolism*. Vol. 102. 2011, pp. 297–297.

Non-Research

- “Self-Testing for Covid-19”. In: *BMJ* (Sept. 14, 2022), o2055. DOI: [10.1136/bmj.o2055](https://doi.org/10.1136/bmj.o2055).

PRESENTATIONS

Podium

- Better Analysis of RCTs*. Bella Convention Centre, Copenhagen, Denmark, Aug. 2022.
- A Simplified Method to Account for Multiple Case Adjustment in Regression Modeling*. 15th Annual Academic Surgical Congress Podium Presentation. Orlando, Florida, Feb. 2020.
- Challenges in the Management of Adrenal Incidentalomas: One Year at an Urban Level I Trauma Center*. 14th Annual Academic Surgical Congress Oral Presentation. Houston TX, Feb. 2019.
- The Effect of Primary Language on Emergency General Surgery Outcomes: A Statewide Database Study*. 14th Annual Academic Surgical Congress Oral Presentation. Houston, TX, Feb. 2019.
- Non-English Language and Outcomes in Emergency General Surgery*. Oral Presentation at Massachusetts State American College of Surgeons Committee on Trauma. Worcester MA, 2018.

The Effect of Trainee Involvement on Patient Outcomes in General Surgery Cases Over Time. 13th Annual Academic Surgical Congress Oral Presentation. Jacksonville FL, Jan. 2018.

Resident and Fellow Participation in Thyroid and Parathyroid Surgery: An American College of Surgeons NSQIP Clinical Outcomes Analysis. 63rd Annual New England Surgical Society Annual Meeting Oral Presentation. Boston MA, Sept. 2016.

Hemoperitoneum Due to Traumatic Avulsion of a Single Leiomyoma Following a Motor Vehicle Collision. Oral Presentation at The Connecticut American College of Surgeons Annual Meeting, New Haven, CT, 2014.

Through the Looking Glass: Telemedicine as a Potential Cure for the Community Intensivist Shortage. Paper Presented at University of Maryland School of Medicine Clinical Capstone Research Project Finalist Presentation Symposium, Baltimore MD. 2014.

Investigation of miRNA-directed Control of LDL Receptor Expression. 32nd Annual UMSOM Medical Student Research Day Oral Presentation. Baltimore, MD, 2009.

Mutations in an Ornithine Transcarbamylase Regulatory Region as a Possible Cause for Reduced Expression in Patients with Ornithine Transcarbamylase Deficiency. Honors Thesis Defense. College Park MD, 2008.

Poster

Better Analysis of RCTs. Society for Epidemiologic Research Annual Meeting. Chicago, IL, 2022.

Limited English Proficiency Is Not Associated with Worse Outcomes after Bariatric Surgery. Boston, MA, Dec. 2019.

Effect of Limited English Proficiency on Outcomes Following Cancer Operations. Poster Presentation. Portland, ME, 2018.

Epidemiology of Incidental Adrenal Masses at an Urban Tertiary Referral and Trauma Center. Poster Presentation. Boston MA, 2018.

The Effect of Primary Language on Outcomes Following Cancer Operations Using a Statewide Database. Poster Presentation. 2018.

Morbidity and Mortality of Emergency General Surgery Based on National Burden. Poster Presentation. Annual Meeting of the New England Surgical Society Bretton Woods, NH, 2017.

Genetic Regulation of OTC in the Urea Cycle. Poster Presentation. College Park, MD, 2009.

Co-Authored

Race as a Determinant of Palliative Care Consultation at a Safety-Net Urban Hospital. Podium Presentation. Orlando, Florida, Feb. 2020.

Improving Communication and Evaluation of Incidental Adrenal Findings. Poster Presentation. Boston Medical Center, Nov. 2019.

Surgical and Oncologic Outcomes of Open Versus Laparoscopic Distal Pancreatectomy in a Low-volume Setting. Poster Presentation. Montral QC Canada, Sept. 2019.

The Association of Primary Language with Outcomes after Cancer Operations at a Single Tertiary Referral Center and Safety Net Hospital. Poster Presentation. Montral QC Canada, Sept. 2019.

Medical Student Perceptions Following Participation in a Surgical Boot Camp – A Qualitative Analysis. Poster Presentation. Houston TX, Feb. 2018.

Transferred Emergency General Surgery Patients Are at Increased Risk of Death. Podium Presentation. Portland, Maine, Sept. 2018.

INVITED PRESENTATIONS

- 2020 **Efforts to Increase Evidence Based Follow-up of Incidental Adrenal Masses at BMC and Beyond.**
Presented at: The Boston Medical Center Surgery Research Conference
- 2019 **The association of limited English proficiency with outcomes after cancer operations; perspectives from a large database and single center study**
Presented at: The Boston Medical Center Annual Mozden Visiting Professorship Conference
- 2019 **Hierarchical/Multilevel Modeling: An Introduction**
Presented at: BU Surgery Resident Research Seminar
- 2019 **Conceptual Models for Regression Analysis in Observational Data: Confounding, Mediation, and Effect Modification**
Presented at: BU Surgery Resident Research Seminar

PROFESSIONAL ACTIVITIES

- 2021 - Present: Epidemiology Program Senator, UNC Graduate and Professional Student Government
- 2021 - Present: Epidemiology Representative, UNC Gillings Student Government
- 2019 - Present: MDEpiNet Executive Operations Committee
- 2019 - Present: Society for Epidemiologic Research-Communications Committee

HONORS AND AWARDS

- 2022 Featured Article/ Cover Article in J. Surg Research for "Incidental Adrenal Masses: Adherence to Guidelines and Methods to Improve Initial Follow-up, A Systematic Review"
- 2018 Winner of the Annual MA ACS Committee on Trauma Resident/Fellow Paper Competition
- 2017 UC Berkeley Social Sciences Research Transparency and Reproducibility (BITSS-RT2) Scholarship
- 2016 Tufts Annual Resident Research Day Finalist
- 2014 Medical School Capstone Research Project Finalist
- 2014 Clinical Honors: Acute Care Surgery, Trauma Surgery, Anesthesia, and Community Medicine
- 2008 Cell Bio and Molecular Genetics Program Distinguished Graduating Student
- 2008 University of Maryland, College Park Senior Marshal
- 2005-2008 Distinguished Deans List
- 2007-2008 College of Chemical and Life Sciences Outstanding Student

STUDENT MENTORSHIP

Christine Park-BU Medical Student, Boston MA 2018-2019
Project: *Association of Language with Operative Outcomes at a Tertiary Safety Net Hospital-A Single Center Study*
Output: Manuscript under review Current Position: *Internal Medicine Resident, Weill Cornell*

Gus Godley-BU MD MBA Student, Boston MA 2018-2020
Project: *The association of primary language with outcomes after cancer operations at a single tertiary referral center and safety net hospital.*
Output: *Podium Presentation at the American College of Surgeons 2019 Annual Meeting Poster Presentation at the New England Surgical Society 2019 Annual Meeting*
Current Position: *General Surgery Resident, Univ of Chicago*

Minh-Thuy Nguyen - BU Medical Student, Boston MA 2018-2020
Project: *Disparities in the utilization of palliative care consultations*
Output: *Differential Utilization of Palliative Care Consultation between Medical and Surgical Services—manuscript published*
Output: *Patient-Level Factors Influencing Utilization of Palliative Care Consultation at a Safety-Net Urban Hospital—abstract submitted to 2020 Academic Surgical Congress*

Andrea Alonso - BU Medical Student, Boston MA 2019-2020
Project: *Bariatric surgery and language outcomes*

Project: *Systematic Review of Language Discordance and Outcomes in Inpatient, Emergency, and Surgery Settings*
Current Position: *General Surgery Resident, Boston University*

TEACHING EXPERIENCE

Teaching Fellow- EPID711 Clinical Measurement and Evaluation, UNC-CH, Chapel Hill NC Fall 2021
Duties; Delivered causal inference and confounding lectures

Teaching Fellow- EPID711 Clinical Measurement and Evaluation, UNC-CH, Chapel Hill NC Fall 2020
Duties; Delivered causal inference lecture, grading, leading office hours, content reviews

Resident Instructor, Tufts Medical Center, Boston MA 2014-2016
Taught medical students about patient care, general surgery and critical care

Math and Science Tutor, Baltimore MD 2008-2010
Tutoring high school students from disadvantaged Baltimore area schools

Course Instructor: Weill-Cornell Youth Scholars Program, New York NY 2008
Summer program to mentor less advantage underrepresented minority high school students in STEM

Undergraduate Teaching Assistant, College Park, MD 2006
Taught General Microbiology

PREVIOUS RESEARCH EXPERIENCE

Research Assistant 08/2020-01/2021
Dept. of Medicine–UNC Medical Center, Chapel Hill, NC.
Investigating outcomes using CNICS multicenter data.

Post Doctoral Research Fellow 11/2017-07/2020
Dept. of Surgery–Boston University/Boston Medical Center, Boston MA.
Advisor: F. Thurston Drake
Clinical Epidemiology and Bio-statistics Researcher, Project Supervisor
Designed, implemented, and analyzed longitudinal prospective quality improvement initiative
Performed multiple large observational database studies using both Frequentist and Bayesian methods
Study design and analysis consulting

Brigham and Women's Hospital, Boston, MA 11/2016-11/2017
Post Graduate Researcher
Advisor: Joaquim Havens
Investigating surgical clinical outcomes using NSQIP database
Extensive use of SAS, R and Stata

Tufts Medical Center, Boston, MA 11/2015-05/2016
Resident Researcher
Advisor: Abhishek Chatterjee
Investigating resident impact on surgical outcomes

R. Adams Cowley Shock Trauma Center, Baltimore, MD 11/2013-5/2014
Student Clinical Researcher
Evaluated outcomes of patients with blunt cerebrovascular injury

University of Maryland School of Medicine, Baltimore, MD 2009-2010
Department of Biochemistry and Molecular Biology
Researched miR10 and its role in Pediatric Leukemias
Techniques used: PCR, Real-time PCR, RNA extraction/isolation,
Cell Culture, Western Blotting, Agarose Gel extraction and electrophoresis,
bacterial cloning.

Undergraduate Research

Research on the Urea Cycle

Techniques used: PCR, PCR, Sanger Sequencing, Bioinformatics

(BLAST, CLUSTALW, alignment manipulation, Transfac database and transcription factor binding site prediction modeling)

LEADERSHIP

2021-Present Epidemiology Program Senator, UNC Graduate and Professional Student Gov.

2021-Present Epidemiology Graduate Rep., Gillings Student Gov.

2009-2010 Vice-President, Medical Student Journal Club

2009-2010 Research Vice-President, Infectious Disease Interest Group

2009-2011 Student Council Representative, UMSOM MD/PhD Student Council

2008 Site Manager and Program Coordinator, Weill-Cornell Youth Scholars Program

2007-2008 Student representative, UMD CFLS Dean's Advisory Board

2003-2004 Apparatus Engineer, Community Volunteer Fire Co. No. 1

PREVIOUS SELECTED ACTIVITIES

2004-2007 Firefighter/EMT , Bladensburg Volunteer Fire Department, PGFD

2002-2005 Firefighter, Community Volunteer Fire Company No. 1

2003-2005 Emergency Medical Technician, West Milford First Aid Squad

2010-2012 MSTP Advisory Board Student Representative

2009-2011 MSTP Curriculum Design Committee

2009-2012 Science Editor, Dual Degree MD/PhD Program Newsletter

2008-2010 Webmaster, UMD AMA Student Section

AD HOC PEER REVIEW

JAMA Surgery, SURGERY, Society for Epidemiologic Research, Journal of Surgical Research, American Journal of Surgery, World Journal of Surgery

PREVIOUS GRANT EXPERIENCE

2007 Howard Hughes Medical Institute Undergraduate Research Fellowship

CERTIFICATIONS

2015 Advanced Trauma Life Support (ATLS)

2014 Fundamentals of Critical Care Support (FCCS)

Firefighter I, Firefighter II, Vehicle Rescue Technician, Ice Rescue Technician, Incident Management 100, 200, and 700, Federal Wildland Firefighter, AHA CPR, GUE Technical Trimix Diver, GUE Full Cave Diver, International Conflict Management

SKILLS AND INTERESTS

R Statistical Software: intermediate to advanced skill with data visualization, descriptive statistics, multivariable regression, and simulation

SAS statistical software :intermediate skill with data visualization, descriptive statistics, multivariable regression, macro coding

STATA statistical software: intermediate to advanced skill with data visualization, descriptive statistics, multivariable regression

Python: basic skill

Git: basic skill; clone commit push pull

L^AT_EX: basic skill

Microsoft Office Suite: Advanced

Interests:

Surgery (Trauma and Acute Care), Critical Care, Causal Inference, Bayesian Methods, Biochemistry, Mathematical Biology, and Molecular Biology