# Daniel T. Vader, MS, PhD

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# Education

**Doctor of Philosophy in Epidemiology, 2020** Drexel University – Dornsife School of Public Health, Philadelphia, PA

Master of Science in Epidemiology, 2015 Drexel University – Dornsife School of Public Health, Philadelphia, PA

Bachelor of Arts in English, 2009 Goshen College, Goshen, IN Minors: Computer Science, Writing

# **Research Experience**

#### **Postdoctoral Researcher**

University of Pennsylvania School of Medicine, Philadelphia, PA July 2020 – present

- Primary research topics include: missing data bias in EHR-based analyses, informative presence bias in EHR-based analyses, pandemic effects on advanced cancer treatment, infection in pediatric solid organ transplant patients, and effects of FDA label change on survival among advanced cancer patients.
- Leads research, provides epidemiologic and statistical support, and manages and analyzes EHR datasets using R in collaboration with biostatisticians, medical doctors, and clinical epidemiologists.

#### **Graduate Research Assistant**

Mid-Atlantic Regional Public Health Training Center Collaborative Project, Philadelphia, PA February 2020 – June 2020

• Investigated sociodemographic patterns of C Diff infection at an urban safety net hospital using multilevel models, geocoding, and other GIS tools.

#### **Statistical Consultant**

Hepatitis B Foundation, Doylestown, PA September 2019 – December 2019

• Provided statistical support for an investigation of predictors of hepatitis B infection among Asian Americans in the Philadelphia area.

#### **Research Fellow**

Drexel University - Dornsife School of Public Health, Philadelphia, PA September 2015 – August 2017 & September 2018 – August 2019  Investigated early childhood vaccination patterns, bias in estimates of adult vaccination and immunity, and clustering of measurement error across health conditions assessed through self-report.

# **Teaching Experience**

#### Adjunct Instructor of Epidemiology and Biostatistics

Geisinger Commonwealth School of Medicine, Doylestown, PA June 2016 – August 2018

- Introduced three cohorts of MS Biological Science students to the foundations of epidemiology and biostatistics.
- Prepared lectures, in-class activities, discussions, projects, and tests.
- Class size: 10 to 20 students.

#### **Teaching Fellow**

Drexel University - Dornsife School of Public Health, Philadelphia, PA July 2017 – June 2018

- Designed and led labs on public health methods for MPH students as part of a new core curriculum.
- Curated an active learning environment and introduced math- and coding-hesitant students to statistical concepts and statistical programming.
- Class size: 4 sections of ~25 students.

#### **Teaching Assistant**

University of Pennsylvania - Perelman School of Medicine, Philadelphia, PA

• 2020, 2021 - EPID 621: Longitudinal/Clustered Data

Drexel University - Dornsife School of Public Health, Philadelphia, PA

- 2017 EPI 564: Data Science Using R
- 2016 PBHL 630: Intermediate Epidemiology
- 2015 PBHL 301: Epidemiology in Public Health

# Articles

Downes K, Sharova A, Boge C, **Vader DT**, Mitrou M, Hayes M, Galetaki D, Gianchetti L, Vella L, Li Y. CMV Infection and Management Among Pediatric Solid Organ Transplant Recipients. *Pediatric Transplantation.* 2022.

Parikh RB, Takvorian SU, **Vader DT**, Wileyto P, Clark AS, Lee DJ, Goyal G, Rocque GB, Dotan E, Geynisman DM, Phull P, Spiess PE, Kim RY, Davidoff AJ, Gross CP, Neparidze N, Miksad RA, Calip GS, Hearn CM, Ferrell W, Shulman LN, Mamtani R, Hubbard R. Impact of the COVID-19 pandemic on treatment patterns for US patients with metastatic solid cancer. *Journal of the National Cancer Institute*. 2021.

**Vader DT,** Weldie C, Welles SL, Kutzler MA, Goldstein ND. Hospital-acquired Clostridioides difficile infection among patients at an urban safety-net hospital in Philadelphia: Demographics,

neighborhood deprivation, and the transferability of national statistics. *Infection Control & Hospital Epidemiology.* 2020.

Freeland C, **Vader DT**, Cohen CA, George B. A Predictive Model for Hepatitis B Infection Among High-Risk Adults Using a Community-Based Sample in Greater Philadelphia. *Journal of Viral Hepatitis*. 2020.

**Vader DT,** Cohen C, Goldstein ND, Lee BK, Quick H, Alison AE. Hepatitis B birth dose effects on childhood immunization in the United States. *American Journal of Preventative Medicine*. 2020; 58(2).

# Abstracts

**Vader DT,** Parikh RB, Li H, Imai K, Hubbard RA, Mamtani R. Impact of FDA label change on immunotherapy for metastatic urothelial cancer (mUC) and subsequent changes in mortality. American Society of Clinical Oncology: Genitourinary Cancers Symposium. 2022. San Francisco, CA.

Parikh RB, Takvorian SU, **Vader DT**, Wileyto P, Clark AS, Lee DJ, Goyal G, Rocque GB, Dotan E, Geynisman DM, Phull P, Spiess PE, Kim RY, Davidoff AJ, Gross CP, Neparidze N, Miksad RA, Calip GS, Hearn CM, Ferrell W, Shulman LN, Mamtani R, Hubbard R. Impact of COVID-19 pandemic on time to treatment initiation for patients with advanced cancer. ASCO Annual Meeting. 2021. Virtual conference.

**Vader DT**, Cohen C, Goldstein ND, Lee BK, Quick H, Evans AA. Re-estimating prevalence of adult hepatitis B immunity in the United States. Society for Epidemiologic Research Annual Meeting. 2021. Virtual Conference.

**Vader DT,** Lee BK, Evans AE. Effects of hepatitis B birth dose on childhood immunization status: an investigation using complex survey data and propensity scores estimated with boosted regression. Society for Epidemiologic Research Annual Meeting. 2019. Minneapolis, MN.

# Submitted articles

**Vader DT**, Cohen C, Goldstein ND, Lee BK, Quick H, Evans AA. Misclassification of adult hepatitis B virus immunity: self-report, serological tests, and correcting biased estimates of prevalence in the United States.

Li Y, **Vader DT**, Oganisian A, Boge C, Hayes M, Newman A, Olson T, Freedman J, Caitlin E, Fisher B. An Illustrative Example of Using Marginal Structure Models for Pediatric Infectious Diseases: Effect of Cytomegalovirus Infection on Hospitalization among Children Undergoing Allogeneic Hematopoietic Cell Transplantation.

# Invited presentations

• 2021 – Performance of approaches for missingness in confounder variables in EHR-based comparative effectiveness analyses; MSO ExCEL Lecture Series, Flatiron Health, Inc.

- 2021 Informative presence bias in longitudinal electronic healthcare record data; Pediatric Infectious Diseases Epidemiology and Antimicrobial Research Group, Children's Hospital of Philadelphia
- 2021 C Diff infection at an urban safety net hospital in Philadelphia; Pediatric Infectious Diseases Epidemiology and Antimicrobial Research Group, Children's Hospital of Philadelphia
- 2020 *Misclassification and self-report data;* IDEAS Data Management and Analysis, Children's Hospital of Philadelphia
- 2020 *C Diff infection at an urban safety net hospital in Philadelphia;* C Diff Research Group; University of Pennsylvania, Perelman School of Medicine
- 2019 *Linear and logistic regression;* PBHL 513: Methods for Public Health Research II; Drexel University, Dornsife School of Public Health
- 2019, 2018, & 2017 Loops and Functions in R; PBHL 564: Data Science Using R; Drexel University Dornsife School of Public Health
- 2017 *Disease Frequency;* PBHL 301: Introductory Epidemiology; Drexel University Dornsife School of Public Health

### Awards

- 2021 SER Conference Scholarship, Society for Epidemiologic Research
- 2019 Scientific Travel Meeting Subsidy, Drexel University Department of Epidemiology
- 2019 Professional Development Award, Drexel University Dornsife School of Public Health
- 2018 Outstanding Mentorship, Drexel University Dornsife School of Public Health
- 2017, 2018 Teaching Assistant Excellence, Drexel University Dornsife School of Public Health
- 2015 Academic Honors (MS Epidemiology), Drexel University Dornsife School of Public Health

# Service and leadership

- 2017-Present Ad Hoc Reviewer, PLOS One
- 2018-Present Youth Mentor, West Philadelphia Mennonite Fellowship
- 2018-2019 Treasurer, Public Health Doctoral Student Advisory Committee
- 2018, 2019 Blog Contributor, GoldsteinEpi <u>Relationships between observed outcomes and true prevalence</u> <u>Demonstrating report generation using R and Sweave</u>
- 2017, 2018 Teaching Assistant Trainer, Drexel University Teaching Assistant Task Force

# Society Memberships

- 2019-Present, Society for Epidemiologic Research
- 2020-Present, New York Academy of Sciences
- 2021-Present, American Public Health Association

January 2021

Technical Skills **Programming:** R, SAS **Software and Tools:** LaTeX, Git, Microsoft Office, Photoshop