

Charles E. Gaber, PhD, MPH

ASSISTANT PROFESSOR

College of Pharmacy, University of Illinois-Chicago

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Education

University of North Carolina	Chapel Hill, NC
PHD, EPIDEMIOLOGY	2022
University of Michigan	Ann Arbor, MI
MPH, EPIDEMIOLOGY	2015
Tulane University	New Orleans, LA
BSPH, PUBLIC HEALTH & ECONOMICS	2013

Experience

Department of Pharmacy Systems, Outcomes & Policy, College of Pharmacy, University of Illinois-Chicago	
ASSISTANT PROFESSOR	2023–Present
Department of Pharmacy Systems, Outcomes & Policy, College of Pharmacy, University of Illinois-Chicago	
VISITING RESEARCH ASSISTANT PROFESSOR	2022–2023
University of North Carolina	
NIH T32 PREDOCTORAL TRAINEE	2019–2022
RTI Health Solutions	
PHARMACOEPIDEMIOLOGY INTERN	Summer 2020
University of North Carolina	
DATABASE MANAGER	2017–2019
Arbor Research Collaborative for Health	
RESEARCH ANALYST	2015–2017
Karmanos Cancer Institute	
COLLABORATING RESEARCH ASSISTANT	2014
Department of Epidemiology, University of Michigan	
GRADUATE RESEARCH ASSISTANT	2013–2015
Marshfield Clinic Research Institute	
EPIDEMIOLOGY INTERN	Summer 2014
Searle Center, Northwestern University	
RESEARCH ANALYST	Summer 2014

Research

EXTRAMURAL FUNDING

AbbVie - UIC Fellowship in Pharmacovigilance and Drug Safety	
MENTOR	2022–Present
<ul style="list-style-type: none">Goal: Train independent pharmacoepidemiologists with expertise and skills in drug safety research that can assume leadership positions in the pharmaceutical industry or academia. Dr. Gaber serves as the mentor for the fellow during the duration of the training.	
NIH T32 DK007634 (PI: Sandler)	
PREDOCTORAL TRAINEE	2019–2022
<ul style="list-style-type: none">Goal: Train pre-doctoral and post-doctoral candidates to improve the understanding of the magnitude, etiology, and impact of digestive diseases, and to assume leadership roles in GI epidemiology and outcomes research. Role: Pre-doctoral trainee.	

Teaching

PSOP 596: Independent Study

INSTRUCTOR

University of Illinois-Chicago

2022–Present

EPID 766: Epidemiologic Research Using Healthcare Databases

TEACHING ASSISTANT

University of North Carolina

Spring 2021

EPID 718: Analytic Methods in Observational Epidemiology

TEACHING ASSISTANT

University of North Carolina

Fall 2019

EPID 771: Cancer Epidemiology: Survivorship and Outcomes

GUEST LECTURER

University of North Carolina

Spring 2022

Mentoring

PHD STUDENTS

PhD Advisor

University of Illinois-Chicago

- Lubna Hassan 2023–Present

Prelim Exam Committee Member

University of Illinois-Chicago

- Abdullah Abdelaziz 2023
- Jyotirmoy Sarker 2023
- Victoria Kulbokas 2023
- Kent Hanson 2022

Dissertation Committee Member

University of Illinois-Chicago

- Huiwen Deng 2023
- Kent Hanson 2023

MASTERS STUDENTS

Masters Thesis Committee Member

University of Illinois-Chicago

- Abdullah Abdelaziz 2023

Masters Capstone Reader

University of Illinois-Chicago

- Katie Carlson 2022–Present

PHARMD STUDENTS

HEOR Concentration Mentor

University of Illinois-Chicago

- Alexis Rhodes 2023

Honors & Awards

Rebecca James Baker Scholarship in Epidemiology

DEPARTMENT OF EPIDEMIOLOGY, UNC-CHAPEL HILL

2022

Scientific Poster Competition Finalist

CENTER FOR GASTROINTESTINAL BIOLOGY AND DISEASE, UNC-CHAPEL HILL

2020

Deans Mentored Research Award

UNIVERSITY OF MICHIGAN SCHOOL OF PUBLIC HEALTH

2013–2015

Deans Scholarship

UNIVERSITY OF MICHIGAN SCHOOL OF PUBLIC HEALTH

2013–2015

Paul Tulane Award for Excellence in Economics

TULANE UNIVERSITY

2013

Presidential Scholarship	
TULANE UNIVERSITY	2009-2013
Omicron Delta Epsilon	
NATIONAL ECONOMICS HONOR SOCIETY	2011
Phi Eta Sigma	
NATIONAL HONOR SOCIETY	2009

Service

SERVICE TO FIELD OF STUDY

Manuscript Reviewer

- Pharmacoepidemiology & Drug Safety
- Journal of Clinical Oncology
- American Journal of Epidemiology
- Journal of Geriatric Oncology

Presentation Award Judge

- Midwest Social and Administrative Pharmacy Conference

2022

UNIVERSITY-LEVEL SERVICE

Data Safety Monitoring Board Member

ACTION, A LIFESTYLE PHYSICAL ACTIVITY INTERVENTION FOR MINORITY WOMEN WITH ASTHMA: FROM EFFICACY TO IMPLEMENTATION

University of Illinois-Chicago

2023-Present

DEPARTMENT-LEVEL SERVICE

Chair of Qualifying Exam Committee

DEPARTMENT OF PHARMACY SYSTEMS, OUTCOMES & POLICY

University of Illinois-Chicago

2024

Member of Qualifying Exam Committee

DEPARTMENT OF PHARMACY SYSTEMS, OUTCOMES & POLICY

University of Illinois-Chicago

2023

Professional Memberships

American Association of Colleges of Pharmacy

2023-Present

Cancer and Aging Research Group

2022-Present

American Society of Clinical Oncology

2021-Present

International Society for Pharmacoepidemiology

2018-Present

Society for Epidemiologic Research

2017-Present

Invited Presentations

SEMINAR PRESENTATIONS

Speaker

PHARMACY SYSTEMS, OUTCOMES & POLICY RESEARCH SEMINAR

February 23rd, 2023

- "Using the Clone Censor Weight Strategy to Improve Trial Emulation in Observational Oncology Research: An Application in Esophageal Cancer"

Guest Speaker

HEALTH SERVICES RESEARCH CORE, CANCER AND AGING RESEARCH GROUP

February 11th, 2022

- "The comparative effectiveness of trimodal therapy versus definitive chemoradiation in older adults with locally advanced esophageal cancer"

Guest Speaker

PHARMACY SYSTEMS, OUTCOMES & POLICY RESEARCH SEMINAR

October 14th, 2021

- "Estimating the effects of drug exposure on the burden of recurrent events in pharmacoepidemiologic studies"

Speaker

CENTER FOR GASTROINTESTINAL BIOLOGY AND DISEASE RESEARCH SEMINAR

August 26th, 2021

- "Using Administrative Claims Data and Pharmacoepidemiologic Principles to Advance Esophageal Disease Research"

Speaker

DIGESTIVE DISEASE EPIDEMIOLOGY SEMINAR

January 27th, 2021

- "Group-based trajectory models: an application to proton pump inhibitor adherence in Barrett's Esophagus patients"

Speaker

DIGESTIVE DISEASE EPIDEMIOLOGY SEMINAR

January 22nd, 2020

- "Using weights in observational epidemiology"

GUEST LECTURES

Guest Lecturer

EPID 771: CANCER EPIDEMIOLOGY: SURVIVORSHIP AND OUTCOMES

April 5th, 2022

- "Cancer Outcomes Research Using the National Cancer Database"

CONFERENCE SYMPOSIA

Symposium Speaker

INTERNATIONAL CONFERENCE ON PHARMACOEPIDEMOLOGY (ICPE) 2022

August 27th, 2022

- "Cloning, Censoring, and Weighting — Oh My! Applications of Target Trial" Emulation for Evaluating Cancer Interventions When Study Eligibility, Intervention Initiation, and Start of Follow-up Are Not Aligned

WEBINARS AND WORKSHOPS

Guest Speaker

COTA HEALTHCARE

May 18th, 2023

- "Applying Real-World Data (RWD) for Oncology Research: Observational Study Design and Analytic Methods"

Publications

1. **Gaber CE**, Sarker J, Abdelaziz AI, et al. Pathologic complete response in patients with esophageal cancer receiving neoadjuvant chemotherapy or chemoradiation: a systematic review and meta-analysis. *Cancer Medicine*. 2024. In-press.
2. **Gaber CE**, Hanson KA, Kim S, Lund JL, Lee TA, Murray EJ. The Clone-Censor-Weight Method in Pharmacoepidemiologic Research: Foundations and Methodological Implementation. *Curr Epidemiol Rep*. Published online February 17, 2024. doi : 10.1007/s40471-024-00346-2
3. **Gaber CE**, Abdelaziz AI, Sarker J, et al. Adherence to prescription proton pump inhibitor therapy amongst individuals diagnosed with Barrett's esophagus. *Pharmacoepidemiol Drug Saf*. 2024;33(2):e5760. doi : 10.1002/pds.5760
4. Kirkegård J, **Gaber CE**, Heide-Jørgensen U, et al. Effect of surgery versus chemotherapy in pancreatic cancer patients: a target trial emulation. *J Natl Cancer Inst*. Published online February 4, 2024. doi : 10.1093/jnci/djae024
5. Abdelaziz AI, Hanson KA, **Gaber CE**, Lee TA. Optimizing large real-world data analysis with parquet files in R: A step-by-step tutorial. *Pharmacoepidemiol Drug Saf*. Published online November 20, 2023. doi : 10.1002/pds.5728
6. Su IH, Lund JL, **Gaber CE**, Sanoff HK, Strassle PD, Duchesneau ED. Regarding "Neoadjuvant Versus Adjuvant Chemotherapy for Resectable Metastatic Colon Cancer in Non-academic and Academic Programs". *Oncologist*. 2023;28(7):e588-e589. doi : 10.1093/oncolo/oyad130

7. Smith JS, Vaz OM, **Gaber CE**, et al. Recruitment strategies and HPV self-collection return rates for under-screened women for cervical cancer prevention. *PLoS One*. 2023;18(3):e0280638. Published 2023 Mar 23. doi:10.1371/journal.pone.0280638
8. **Gaber CE**, Edwards JK, Lund JL, Peery AF, Richardson DB, Kinlaw AC. Inverse Probability Weighting to Estimate Exposure Effects on the Burden of Recurrent Outcomes in the Presence of Competing Events. *Am J Epidemiol*. 2023;192(5):830-839. doi:10.1093/aje/kwad031
9. **Gaber CE**, Shaheen NJ, Edwards JK, et al. Trimodality Therapy vs Definitive Chemoradiation in Older Adults With Locally Advanced Esophageal Cancer. *JNCI Cancer Spectr*. 2022;6(6):pkac069. doi:10.1093/jncics/pkac069
10. **Gaber CE**, Shaheen NJ, Sandler RS, et al. Patterns of care amongst older adults diagnosed with locally advanced esophageal cancer: A cohort study. *J Geriatr Oncol*. 2022;13(8):1178-1187. doi:10.1016/j.jgo.2022.08.009
11. **Gaber CE**, Cotton CC, Eluri S, Lund JL, Farrell TM, Dellon ES. Autoimmune and viral risk factors are associated with achalasia: A case-control study. *Neurogastroenterol Motil*. 2022;34(7):e14312. doi:10.1111/nmo.14312
12. **Gaber CE**, Eluri S, Cotton CC, et al. Epidemiologic and Economic Burden of Achalasia in the United States. *Clin Gastroenterol Hepatol*. 2022;20(2):342-352.e5. doi:10.1016/j.cgh.2021.02.035
13. **Gaber CE**, Kinlaw AC, Edwards JK, et al. Comparative Effectiveness and Harms of Antibiotics for Outpatient Diverticulitis: Two Nationwide Cohort Studies. *Ann Intern Med*. 2021;174(6):737-746. doi:10.7326/M20-6315
14. Bryant MK, Ward C, **Gaber CE**, Strassle PD, Ollila DW, Laks S. Decreased survival and increased recurrence in Merkel cell carcinoma significantly linked with immunosuppression. *J Surg Oncol*. 2020;122(4):653-659. doi:10.1002/jso.26048
15. Louie RJ, **Gaber CE**, Strassle PD, Gallagher KK, Downs-Canner SM, Ollila DW. Trends in Surgical Axillary Management in Early Stage Breast Cancer in Elderly Women: Continued Over-Treatment. *Ann Surg Oncol*. 2020;27(9):3426-3433. doi:10.1245/s10434-020-08388-8
16. Schlottmann F, **Gaber CE**, Strassle PD, Charles AG, Patti MG. Health care disparities in colorectal and esophageal cancer. *Am J Surg*. 2020;220(2):415-420. doi:10.1016/j.amjsurg.2019.12.025
17. Downs-Canner SM, **Gaber CE**, Louie RJ, et al. Nodal positivity decreases with age in women with early-stage, hormone receptor-positive breast cancer. *Cancer*. 2020;126(6):1193-1201. doi:10.1002/cncr.32668
18. Kirkegård J, **Gaber CE**, Lund JL, et al. Acute pancreatitis as an early marker of pancreatic cancer and cancer stage, treatment, and prognosis. *Cancer Epidemiol*. 2020;64:101647. doi:10.1016/j.canep.2019.101647
19. Mukhopadhyay P, Pearson J, Cogan C, **Gaber CE**, Gillespie BW, Turenne M. Does One Size Fit All With the Effects of Payment Reform? Dialysis Facility Payer Mix and Anemia Management Under the Expanded Medicare Prospective Payment System. *Med Care*. 2019;57(8):584-591. doi:10.1097/MLR.0000000000001151
20. Schlottmann F, **Gaber CE**, Strassle PD, Herbella FAM, Molena D, Patti MG. Disparities in esophageal cancer: less treatment, less surgical resection, and poorer survival in disadvantaged patients. *Dis Esophagus*. 2020;33(2):doz045. doi:10.1093/dote/doz045
21. Schlottmann F, **Gaber CE**, Strassle PD, Patti MG, Charles AG. Cholecystectomy Vs. Cholecystostomy for the Management of Acute Cholecystitis in Elderly Patients. *J Gastrointest Surg*. 2019;23(3):503-509. doi:10.1007/s11605-018-3863-1
22. Schlottmann F, Strassle PD, **Gaber CE**, Patti MG. Stage III esophageal adenocarcinoma: definitive chemoradiation vs. chemoradiation plus surgery. *Updates Surg*. 2018;70(4):423-426. doi:10.1007/s13304-018-0541-5
23. Greenlee RT, Go AS, Peterson PN, et al. Device Therapies Among Patients Receiving Primary Prevention Implantable Cardioverter-Defibrillators in the Cardiovascular Research Network. *J Am Heart Assoc*. 2018;7(7):e008292. Published 2018 Mar 26. doi:10.1161/JAHA.117.008292
24. Saran R, Robinson B, Abbott KC, et al. US Renal Data System 2016 Annual Data Report: Epidemiology of Kidney Disease in the United States. *Am J Kidney Dis*. 2017;69(3 Suppl 1):A7-A8. doi:10.1053/j.ajkd.2016.12.004

25. **Gaber CE**, Meza R, Ruterbusch JJ, Cote ML. Endometrial Cancer Trends by Race and Histology in the USA: Projecting the Number of New Cases from 2015 to 2040. *J Racial Ethn Health Disparities*. Published online October 17, 2016. doi:10.1007/s40615-016-0292-2
26. Lau YK, Caverly TJ, Cao P, et al. Evaluation of a Personalized, Web-Based Decision Aid for Lung Cancer Screening. *Am J Prev Med*. 2015;49(6):e125-e129. doi:10.1016/j.amepre.2015.07.027

Conference Abstracts

1. **Gaber CE**, Sarker J, Abdelaziz AI, et al. Pathologic complete response among patients with esophageal cancer receiving neoadjuvant chemotherapy or chemoradiation: A meta-analysis. ASCO Gastrointestinal Cancers Symposium, January 2024.
2. **Gaber CE**, Shaheen NJ, Edwards JK, Sandler RS, Nichols HB, Sanoff HK, Lund JL. Patterns of Care Among Older Adults Diagnosed with Locally Advanced Esophageal Cancer Eligible for Trimodal Therapy. Poster presentation at the 38th International Conference on Pharmacoepidemiology and Therapeutic Risk Management (ICPE), August 2022.
3. **Gaber CE**, Shaheen NJ, Edwards JK, Sandler RS, Nichols HB, Sanoff HK, Lund JL. The Comparative Effectiveness of Trimodal Therapy Versus Definitive Chemoradiation in Older Adults with Locally Advanced Esophageal Cancer. Poster presentation at the 38th International Conference on Pharmacoepidemiology and Therapeutic Risk Management (ICPE), August 2022.
4. **Gaber CE**, Shaheen NJ, Edwards JK, Sandler RS, Nichols HB, Sanoff HK, Lund JL. Comparative effectiveness of trimodal therapy versus definitive chemoradiation in older adults with locally advanced esophageal cancer. Online publication abstract for American Society of Clinical Oncology (ASCO), 2022.
5. **Gaber CE**, Edwards JK, Lund JL, Peery AF, Richardson DB, Kinlaw AC. Inverse probability weighting to estimate exposure effects on the burden of recurrent outcomes in the presence of competing events. Poster presentation at Society of Epidemiologic Research (SER), June 2022.
6. **Gaber CE**, Lund JL, Cotton CC, Eluri S, Dellon ES, Shaheen NJ. Patterns and Predictors of Adherence to Prescription Proton Pump Inhibitor Therapy in a Population of Commercially Insured Barrett's Esophagus Patients. Poster presentation at Digestive Disease Week (DDW), May 2022.
7. Layton JB, Ziemiecki R, Danysh H, **Gaber CE**, Gilsenan A, Johannes C. Graphical Representation of an Array of Quantitative Bias Analysis Scenarios for Differential Outcome Misclassification. Oral presentation at the 37th International Conference on Pharmacoepidemiology and Therapeutic Risk Management (ICPE), August 2021.
8. **Gaber CE**, Cotton CC, Eluri S, Strassle PD, Farrell TM, Lund JL, Dellon ES. Associations Between Autoimmune and Viral Risk Factors for Achalasia: A Case-Control Study. Poster presentation at Digestive Disease Week (DDW), May 2021.
9. **Gaber CE**, Kinlaw AC, Edwards JK, Lund JL, Sandler RS. Effect of Amoxicillin-clavulanate Versus Metronidazole and a Fluoroquinolone on Hospital Admission Risk in Outpatients with Diverticulitis in the United States. Oral presentation at Digestive Disease Week (DDW), May 2020.
10. **Gaber CE**, Eluri S, Strassle PD, Farrell TM, Lund JL, Dellon ES. Prevalence of Achalasia in the Medicare Population. Poster presentation at Digestive Disease Week (DDW), May 2020.
11. Merlo A, Strassle PD, **Gaber CE**, Mody GN. Time to Malignant Pleural Effusion by Cancer Type and Stage at Presentation-An Analysis of the Surveillance, Epidemiology and End Results (SEER) Medicare Database. Abstract accepted at the Scientific Forum of the American College of Surgeons, 2020.
12. Baldwin X, **Gaber CE**, Strassle PD, Maduekwe. Outcomes of Surgical Resection for Metastatic Cholangiocarcinoma. Presented at Society of Black Academic Surgeons (SBAS), New York City NY, April 2019.
13. Louie R, Downs-Canner S, **Gaber CE**, Strassle PD, Gallagher K, Ollila D. Trends in Surgical Axillary Management in Early Stage Breast Cancer in Elderly Women: Continued Overtreatment? Poster presentation at Society of Surgical Oncology (SSO), San Diego, CA, March 2019.
14. Downs-Canner S, **Gaber CE**, Strassle PD, Louie R, Gallagher K, Ollila D. Nodal-Positivity Decreases with Age in Women with Early Hormone Receptor-Positive Breast Cancer. Poster presentation at Society of Surgical Oncology (SSO), San Diego, CA, March 2019.
15. Bryant M, Laks S, Strassle PD, **Gaber CE**, Kim L. Long-term Outcomes After Adrenalectomy for Solid Tumor Metastases: A Single-Center Perspective. Poster presentation at Society of Surgical Oncology (SSO), San Diego, CA, March 2019.
16. Jadi J, Nayyar A, **Gaber CE**, Strassle PD, Gerbe D, Toledo A, Serrano P. Predicted End-Stage Renal Disease Risk in Living Kidney Donors at an Academic Medical Center. Poster presentation at American Surgical Congress (ASC), Houston, TX, February 2019.

17. Reid TD, Mikhaylov-Schrank Y, **Gaber CE**, Strassle PD, Maine R, Higginson SM, Charles AG, Beckman C, Cairns BA, Raff L. The Feasibility of Extracorporeal Membrane Oxygenation (ECMO) in Burn and Inhalation Injury Patients. Presented at the 14th Annual Academic Surgical Congress (ASC), Houston TX, February 2019.
18. Schlottmann F, **Gaber CE**, Strassle PD, Charles A, Patti MG. Disparities in Stage at Diagnosis among Screening and Non-screening Mandated Gastrointestinal Cancers. Poster presentation at American College of Surgeons (ACS) Clinical Congress, Boston, MA, October 2018.
19. Schlottmann F, **Gaber CE**, Strassle PD, Sadva E, Perez A. Nationwide Analysis of Laparoscopic versus Open Inguinal Hernia Repair. Poster presentation at American College of Surgeons (ACS) Clinical Congress, Boston, MA, October 2018.
20. Yohann A, Reid T, Strassle PD, **Gaber CE**, Charles A, Maine R. Risk Factors for Inpatient Mortality among Fall Patients in sub-Saharan Africa. Poster presentation at the American College of Surgeons (ACS) Clinical Congress, Boston, MA, October 2018.
21. Schlottmann F, **Gaber CE**, Strassle PD, Patti MG, Charles AG. Comparative Analysis of Cholecystectomy vs. Cholecystostomy for the Management of Acute Cholecystitis in Elderly Patients. Poster presentation at Digestive Disease Week (DDW), Washington, DC, June 2018.
22. Williams F, **Gaber CE**, Strassle P, Nizamani R, van Duin D, Cairns B, Jones S. Trends in Pediatric Inpatient Burns: A Single Center Study. Poster presentation at the American Burn Association (ABA) 50th Annual meeting, Chicago, IL, April 2018.
23. Orgel RM, Strassle PD, **Gaber CE**, Caranasos T, Vavalle J, Rossi J. National Trends in Length of Stay and Discharge Disposition in 'Bundled Payment' CABG and AMI/PCI Patients: A National Inpatient Sample Analysis." Poster presentation at the American College of Cardiology (ACC) 67th Annual Scientific Session & Expo, Orlando FL, March 2018.