

# Charles Gaber, PhD, MPH

ASSISTANT PROFESSOR

College of Pharmacy, University of Illinois-Chicago

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## Education

### University of North Carolina

PHD, EPIDEMIOLOGY

Chapel Hill, NC

2022

### University of Michigan

MPH, EPIDEMIOLOGY

Ann Arbor, MI

2015

### Tulane University

BSPH, PUBLIC HEALTH & ECONOMICS

New Orleans, LA

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

- 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

- 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

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### 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

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#### 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

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### SERVICE TO FIELD OF STUDY

#### Manuscript Reviewer

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

#### 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

2023

#### Member of Qualifying Exam Committee

DEPARTMENT OF PHARMACY SYSTEMS, OUTCOMES & POLICY

University of Illinois-Chicago

2024

## Professional Memberships

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#### 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

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### 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 PHARMACOEPIDEMIOLOGY (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

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1. Abdelaziz, A. I., Hanson, K. A., **Gaber, C. E.**, & Lee, T. A. (2023). Optimizing large real-world data analysis with parquet files in R: A step-by-step tutorial. *Pharmacoepidemiology and Drug*, pds.5728. <https://doi.org/10.1002/pds.5728>
2. **Gaber, C. E.**, Edwards, J. K., Lund, J. L., Peery, A. F., Richardson, D. B., & Kinlaw, A. C. (2023). Inverse Probability Weighting to Estimate Exposure Effects on the Burden of Recurrent Outcomes in the Presence of Competing Events. *American Journal of Epidemiology*, 192(5), 830–839. <https://doi.org/10.1093/aje/kwad031>
3. Smith, J. S., Vaz, O. M., **Gaber, C. E.**, Des Marais, A. C., Chirumamilla, B., Hendrickson, L., Barclay, L., Richman, A. R., Brooks, X., Pfaff, A., & Brewer, N. T. (2023). Recruitment strategies and HPV self-collection return rates for under-screened women for cervical cancer prevention. *PLoS ONE*, 18(3), e0280638. <https://doi.org/10.1371/journal.pone.0280638>
4. **Gaber, C. E.**, Cotton, C. C., Eluri, S., Lund, J. L., Farrell, T. M., & Dellon, E. S. (2022). Autoimmune and viral risk factors are associated with achalasia: A case-control study. *Neurogastroenterology Motil*, 34(7), e14312. <https://doi.org/10.1111/nmo.14312>
5. **Gaber, C. E.**, Eluri, S., Cotton, C. C., Strassle, P. D., Farrell, T. M., Lund, J. L., & Dellon, E. S. (2022). Epidemiologic and Economic Burden of Achalasia in the United States. *Clinical Gastroenterology and Hepatology*, 20(2), 342–352.e5. <https://doi.org/10.1016/j.cgh.2021.02.035>
6. **Gaber, C. E.**, Shaheen, N. J., Edwards, J. K., Sandler, R. S., Nichols, H. B., Sanoff, H. K., & Lund, J. L. (2022). Trimodality Therapy vs Definitive Chemoradiation in Older Adults With Locally Advanced Esophageal Cancer. *JNCI Cancer Spectrum*, 6(6), pkac069. <https://doi.org/10.1093/jncics/pkac069>
7. **Gaber, C. E.**, Shaheen, N. J., Sandler, R. S., Edwards, J. K., Nichols, H. B., Sanoff, H. K., & Lund, J. L. (2022). Patterns of care amongst older adults diagnosed with locally advanced esophageal cancer: A cohort study. *Journal of Geriatric Oncology*, 13(8), 1178–1187. <https://doi.org/10.1016/j.jgo.2022.08.009>
8. **Gaber, C. E.**, Kinlaw, A. C., Edwards, J. K., Lund, J. L., Stürmer, T., Peacock Hinton, S., Pate, V., Bartelt, L. A., Sandler, R. S., & Peery, A. F. (2021). Comparative Effectiveness and Harms of Antibiotics for Outpatient Diverticulitis: Two Nationwide Cohort Studies. *Ann Intern Med*, 174(6), 737–746. <https://doi.org/10.7326/M20-6315>

9. Bryant, M. K., Ward, C., **Gaber, C. E.**, Strassle, P. D., Ollila, D. W., & Laks, S. (2020). Decreased survival and increased recurrence in Merkel cell carcinoma significantly linked with immunosuppression. *Journal of Surgical Oncology*, 122(4), 653–659. <https://doi.org/10.1002/jso.26048>
10. Downs-Canner, S. M., **Gaber, C. E.**, Louie, R. J., Strassle, P. D., Gallagher, K. K., Muss, H. B., & Ollila, D. W. (2020). Nodal positivity decreases with age in women with early-stage, hormone receptor<u+2013>positive breast cancer. *Cancer*, 126(6), 1193–1201. <https://doi.org/10.1002/cncr.32668>
11. Kirkegård, J., **Gaber, C.**, Lund, J. L., Hinton, S. P., Ladekarl, M., Heide-Jørgensen, U., Cronin-Fenton, D., & Mortensen, F. V. (2020). Acute pancreatitis as an early marker of pancreatic cancer and cancer stage, treatment, and prognosis. *Cancer Epidemiology*, 64, 101647. <https://doi.org/10.1016/j.canep.2019.101647>
12. Louie, R. J., **Gaber, C. E.**, Strassle, P. D., Gallagher, K. K., Downs-Canner, S. M., & Ollila, D. W. (2020). Trends in Surgical Axillary Management in Early Stage Breast Cancer in Elderly Women: Continued Over-Treatment. *Ann Surg Oncol*, 27(9), 3426–3433. <https://doi.org/10.1245/s10434-020-08388-8>
13. Perez, A. J., Strassle, P. D., Sadava, E. E., **Gaber, C.**, & Schlottmann, F. (2020). Nationwide Analysis of Inpatient Laparoscopic Versus Open Inguinal Hernia Repair. *Journal of Laparoendoscopic & Advanced Surgical Techniques*, 30(3), 292–298. <https://doi.org/10.1089/lap.2019.0656>
14. Schlottmann, F., **Gaber, C.**, Strassle, P. D., Charles, A. G., & Patti, M. G. (2020). Health care disparities in colorectal and esophageal cancer. *The American Journal of Surgery*, 220(2), 415–420. <https://doi.org/10.1016/j.amjsurg.2019.12.025>
15. Schlottmann, F., **Gaber, C.**, Strassle, P. D., Herbella, F. A. M., Molena, D., & Patti, M. G. (2020). Disparities in esophageal cancer: Less treatment, less surgical resection, and poorer survival in disadvantaged patients. *Diseases of the Esophagus*, 33(2), doz045. <https://doi.org/10.1093/dote/doz045>
16. Mukhopadhyay, P., Pearson, J., Cogan, C., **Gaber, C.**, Gillespie, B. W., & Turenne, M. (2019). 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. *Medical Care*, 57(8), 584–591. <https://doi.org/10.1097/MLR.0000000000001151>
17. Schlottmann, F., **Gaber, C.**, Strassle, P. D., Patti, M. G., & Charles, A. G. (2019). Cholecystectomy Vs. Cholecystostomy for the Management of Acute Cholecystitis in Elderly Patients. *J Gastrointest Surg*, 23(3), 503–509. <https://doi.org/10.1007/s11605-018-3863-1>
18. Greenlee, R. T., Go, A. S., Peterson, P. N., Cassidy?Bushrow, A. E., **Gaber, C.**, Garcia?Montilla, R., Glenn, K. A., Gupta, N., Gurwitz, J. H., Hammill, S. C., Hayes, J. J., Kadish, A., Magid, D. J., McManus, D. D., Multerer, D., Powers, J. D., Reifler, L. M., Reynolds, K., Schuger, C., ...Masoudi, F. A. (2018). Device Therapies Among Patients Receiving Primary Prevention Implantable Cardioverter-Defibrillators in the Cardiovascular Research Network. *JAHA*, 7(7), e008292. <https://doi.org/10.1161/JAHA.117.008292>
19. Schlottmann, F., Strassle, P. D., **Gaber, C.**, & Patti, M. G. (2018). Stage III esophageal adenocarcinoma: Definitive chemoradiation vs. Chemoradiation plus surgery. *Updates Surg*, 70(4), 423–426. <https://doi.org/10.1007/s13304-018-0541-5>
20. **Gaber, C.**, Meza, R., Ruterbusch, J. J., & Cote, M. L. (2017). Endometrial Cancer Trends by Race and Histology in the USA: Projecting the Number of New Cases from 2015 to 2040. *J. Racial and Ethnic Health Disparities*, 4(5), 895–903. <https://doi.org/10.1007/s40615-016-0292-2>
21. Saran, R., Robinson, B., Abbott, K. C., Agodoa, L. Y. C., Albertus, P., Ayanian, J., Balkrishnan, R., Bragg-Gresham, J., Cao, J., Chen, J. L. T., Cope, E., Dharmarajan, S., Dietrich, X., Eckard, A., Eggers, P. W., **Gaber, C.**, Gillen, D., Gipson, D., Gu, H., ... Shahinian, V. (2017). US Renal Data System 2016 Annual Data Report: Epidemiology of Kidney Disease in the United States. *American Journal of Kidney Diseases*, 69(3), A7–A8. <https://doi.org/10.1053/j.ajkd.2016.12.004>
22. Lau, Y. K., Caverly, T. J., Cao, P., Cherng, S. T., West, M., **Gaber, C.**, Arenberg, D., & Meza, R. (2015). Evaluation of a Personalized, Web- Based Decision Aid for Lung Cancer Screening. *American Journal of Preventive Medicine*, 49(6), e125–e129. <https://doi.org/10.1016/j.amepre.2015.07.027>